

# Comprehensive Annual Financial Report

*for the fiscal year ended June 30, 2015*

Financial  
Security

Peace of  
Mind in  
Retirement



PUBLIC SCHOOL & EDUCATION EMPLOYEE  
RETIREMENT SYSTEMS OF MISSOURI



# Comprehensive Annual Financial Report

*for the fiscal year ended June 30, 2015*

Financial  
Security

Peace of  
Mind in  
Retirement

M. Steve Yoakum  
Executive Director

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PUBLIC SCHOOL & EDUCATION EMPLOYEE  
RETIREMENT SYSTEMS OF MISSOURI



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## Mission Statement

The Public School Retirement System of Missouri and the Public Education Employee Retirement System of Missouri (PSRS and PEERS) work in partnership with the member school districts of this state to provide eligible employees and their beneficiaries with a significant source of income based on the employee's length of service and compensation in order to enhance retirement, disability and death benefits received from other sources.

It is the fiduciary responsibility of those charged with the administration of PSRS and PEERS to:

- Effectively collect contributions,
- Prudently invest the assets to obtain optimum returns,
- Equitably provide benefits, and
- Impartially and in accordance with applicable law administer the benefit programs.

The PSRS/PEERS Board of Trustees and staff are committed to providing services to the members and beneficiaries professionally, promptly, courteously and efficiently.

## Mission Statement Principles

- We will conduct the business of the Retirement Systems in accordance with the mission statement.
- We will act as fiduciaries in the management of all funds for the exclusive benefit of our members.
- We will adhere to our investment policy to ensure the highest possible investment return consistent with the prudent investment of plan assets.
- We will have as our goal the replacement of 80% of a member's final average salary after a 30-year career through the combination of income from public pensions and, when applicable, the federal Social Security system.
- We will have as our goal the retention of purchasing power of the initial retirement benefit through the retirement years.
- We will maintain an independent retirement system that retains the power of the trustees to set actuarial assumptions, appoint consultants, employ staff, establish a budget and conduct all business of the Retirement Systems.
- We will prepare and distribute an annual financial report that adheres to U.S. generally accepted accounting principles.
- We will provide prompt, courteous and accurate service to our members.
- We will provide clear and complete information to the members and the districts through the use of a summary plan document, newsletters, an annual member account statement and any other documents deemed necessary.
- We will adhere to the highest standards of ethical conduct.



## Financial Security

### Peace of Mind – Before and During Retirement

At the Public School and Education Employee Retirement Systems of Missouri (PSRS/PEERS), our job is to provide secure, lifetime retirement benefits to our members. But when you think about it, the benefits of membership add up to more than just the dollars.

In addition to financial security, we are proud to provide our members financial peace of mind. PSRS/PEERS membership brings with it the confidence of knowing you have a secure, stable retirement system standing with you, helping you provide for your retirement income, your family and your future.



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## Board of Trustees



**Dr. Aaron Zalis**  
Chair  
Elected PSRS  
Member



**Jason Hoffman**  
Vice Chair  
Elected PEERS  
Member



**Yvonne Heath**  
Elected PSRS  
Member



**Wayne Wheeler**  
Appointed Retired  
Member



**Scott Hunt**  
Appointed Member



**Susan McClintic**  
Elected PSRS  
Member

NOTE: As of the printing of this *Comprehensive Annual Financial Report*, one appointed Board position is vacant.



## Transmittal Letter



PUBLIC SCHOOL & EDUCATION EMPLOYEE  
RETIREMENT SYSTEMS OF MISSOURI

December 10, 2015

To the Board of Trustees and Members of the Retirement Systems:

We are pleased to present the ***Comprehensive Annual Financial Report (CAFR)*** of the Public School Retirement System of Missouri (PSRS) and the Public Education Employee Retirement System of Missouri (PEERS) for the fiscal year ended June 30, 2015. ***Peace of Mind in Retirement***...in addition to financial security, we are proud to provide our members financial peace of mind before and during retirement.

In addition to providing information to our Board of Trustees and members concerning the financial condition of the Systems, this report also meets our reporting requirements under Sections 169.020. (4).16 and 169.450(4).11 of the Revised Statutes of Missouri (RSMo). Printed copies are available to the public upon request and the complete report is also posted on our website, [www.psrs-peers.org](http://www.psrs-peers.org).

This letter provides a brief overview of the contents of the CAFR. We encourage you to read the Management's Discussion and Analysis on pages 15 to 19 for a more detailed analysis of our financial position for the fiscal year.

### Report Contents and Structure

Responsibility for the preparation, accuracy and completeness of this report, including all disclosures, rests with the management staff of PSRS/PEERS (the Systems). The Systems' financial statements are prepared in accordance with U.S. generally accepted accounting principles (GAAP) within the guidelines established by the Governmental Accounting Standards Board (GASB). To the best of our knowledge, the enclosed data is accurate in all material respects and fairly presents our financial position and operating results.

The management of the Systems is responsible for internal accounting controls, which are designed to provide reasonable but not absolute assurance for the safeguarding of assets and the reliability of financial records. The cost of internal controls should not exceed the benefits to be derived. The objective of internal controls is to provide reasonable, rather than absolute assurance, that the financial statements are free of any material misstatements. The Systems employ two internal auditors who perform operational reviews to ensure that the internal controls are functioning effectively. We believe the internal controls in place are adequate to meet the purpose for which they were intended.

Our independent external auditors, selected by the Board of Trustees, have conducted an audit of the basic financial statements in accordance with U.S. generally accepted auditing standards. This audit and the financial statements are presented on pages 13 to 44 of this report.

### Overview of the Retirement Systems

The Public School Retirement System of Missouri (PSRS), a cost-sharing multiple employer retirement system, was established in 1946 by an act of the Missouri legislature to provide certificated public school employees and their families with a significant and stable source of retirement income, disability and survivor benefits. The majority of PSRS members do not contribute to Social Security.

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**Toll Free** (800) 392-6848 **Email** [psrspeers@psrspeers.org](mailto:psrspeers@psrspeers.org) **Member Services FAX** (573) 634-7934 **Employer Services FAX** (573) 634-7911



The Non-Teacher School Employee Retirement System of Missouri (NTRS), also a cost-sharing multiple employer retirement system, was established in 1965 by an act of the Missouri legislature to build a plan similar to PSRS, but for non-certificated public school personnel. The name of the non-teacher system was changed to the Public Education Employee Retirement System of Missouri (PEERS) in August 2005 to more positively represent the members of the System. Members of PEERS contribute to Social Security.

PSRS and PEERS are governed jointly by a seven-member Board of Trustees, composed of three elected PSRS members, one elected PEERS member and three members appointed by the governor.

Unlike most public pension systems, the members of PSRS and PEERS share equally in funding the contributions to the Retirement Systems. This funding mechanism has kept the employer contributions lower than many public plans while still providing a very good benefit package to members.

The combined Systems serve over 250,000 total members in 537 districts and other employers. Approximately \$2.5 billion is paid annually to over 82,000 service retirees and beneficiary recipients. At June 30, 2015, PSRS/PEERS had a market value of invested assets of approximately \$38.6 billion, making it larger than all other retirement systems in the state of Missouri combined.

### Investment Activities

The Systems earned an investment return of 4.5% for fiscal year 2015. The total plan return exceeded the total plan policy benchmark return of 3.5% but fell short of the long-term objective (actuarial assumption) of 8.0%. The Systems' 2015 fiscal year return net of all fees and expenses was 4.3%. Over long periods of time, the Systems continue to produce investment returns that meet or exceed the Systems' objective. The annualized investment return for the Systems' over the last five years is 11.3% and 9.1% over the last 30 years.

The investment return for the fiscal year was lower than the long-term expected return of 8.0% but far better than most other institutional investors. The Systems' investment return for fiscal year 2015 exceeded 85% of the peer group as defined by the Wilshire TUCS universe of public pension plans with assets in excess of \$1 billion. Additionally, the Systems generated the fiscal year 2015 return (and longer-term investment returns) while taking less risk than approximately two-thirds of comparable public funds in the United States.

Additional detailed information regarding the Systems' investments, including policies and strategies, can be found in the Investment Section of this report beginning on page 45.

### Funding Status and Valuation Results

As stated in the Systems', Actuarial Funding Policy, the funding objective of the Systems is to achieve a funded ratio of 100% over a closed 30-year period from fiscal year 2001 through fiscal year 2040. For funding purposes, the funded ratio is defined as the actuarial value of assets divided by the actuarial accrued liability determined under the entry age normal cost method and the actuarial assumptions adopted by the Board of Trustees. As of June 30, 2015, PSRS was 83.9% pre-funded, while PEERS was 86.8% pre-funded. Both Systems showed an increase in funding from the June 30, 2014 funded percentages of 82.8% for PSRS and 85.1% for PEERS. The increase in funding is due to favorable investment experience over the past five years. Additional information on actuarial assumptions and funding can be found in the actuarial section of this report.

Based upon the June 30, 2015 valuation, the Board of Trustees was able to set the fiscal year 2017 contribution rates at the fiscal year 2016 level for both members and employers. This was the sixth year that rates remained constant. The Systems have maintained solid funded positions without raising the contribution rates due to funding policies enacted by the Board of Trustees in 2011 and the long-term investment returns achieved by our internal investment staff and outside investment managers.



## Transmittal Letter, continued

**Legislative Changes During 2014-2015**

There was no legislation during the 2015 legislative session that directly affected the Systems.

**Awards****Public Pension Coordinating Council (PPCC), Public Pension Standards Award**

PSRS and PEERS each received the Public Pension Standards Awards in 2015 in recognition of meeting professional standards for plan administration and plan funding as set forth in the Public Pension Standards of the PPCC. These awards are presented by the PPCC, a confederation of the National Association of State Retirement Administrators (NASRA), the National Conference on Public Employee Retirement Systems (NCPERS), and the National Council on Teacher Retirement (NCTR).

**Certificate of Achievement for Excellence in Financial Reporting**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to PSRS and PEERS for the *Comprehensive Annual Financial Report* for the fiscal year ended June 30, 2014. The Certificate of Achievement is a prestigious national award recognizing excellence in the preparation of state and local government financial reports. To be awarded the Certificate of Achievement, a government unit must publish an easily readable and efficiently organized CAFR whose contents meet or exceed program standards. This report must satisfy both U.S. generally accepted accounting principles, applicable legal requirements and GFOA standards. A Certificate of Achievement is valid for only one year. We believe our current report continues to meet the Certificate of Achievement program requirements and are submitting it to GFOA for consideration again this year.

**Professional Services**

Certain professional services are provided to the Systems by retained consultants. The required opinion letters from two of those consultants, PricewaterhouseCoopers, LLC, actuaries, and Williams Keepers LLC, independent certified public accountants, are contained elsewhere in this report.

Investment consulting services, as well as investment manager search assistance and investment performance analysis, have been provided by Towers Watson.

**Acknowledgements**

We would like to express our thanks and gratitude to the Board of Trustees, staff, and consultants who have worked diligently to produce this report and to ensure the successful operation of the Systems.

Respectfully submitted,



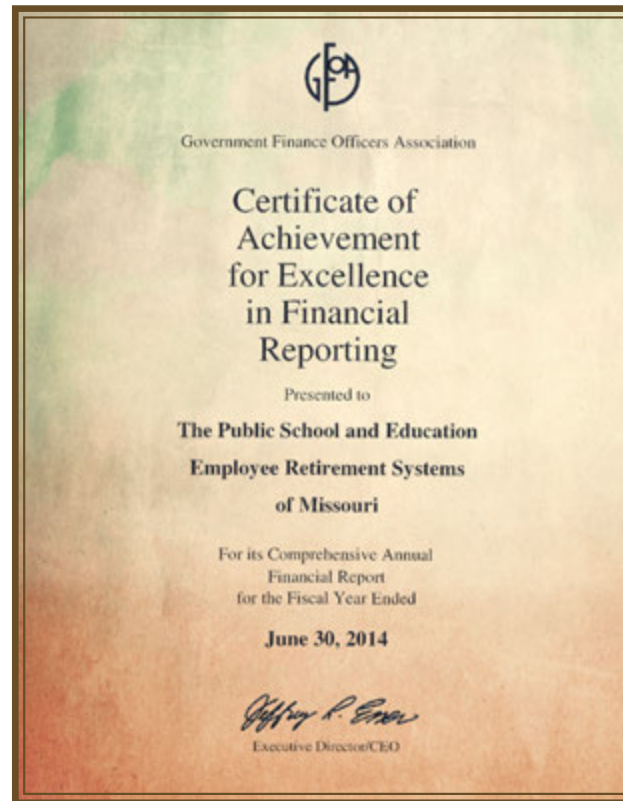
M. Steve Yoakum  
Executive Director



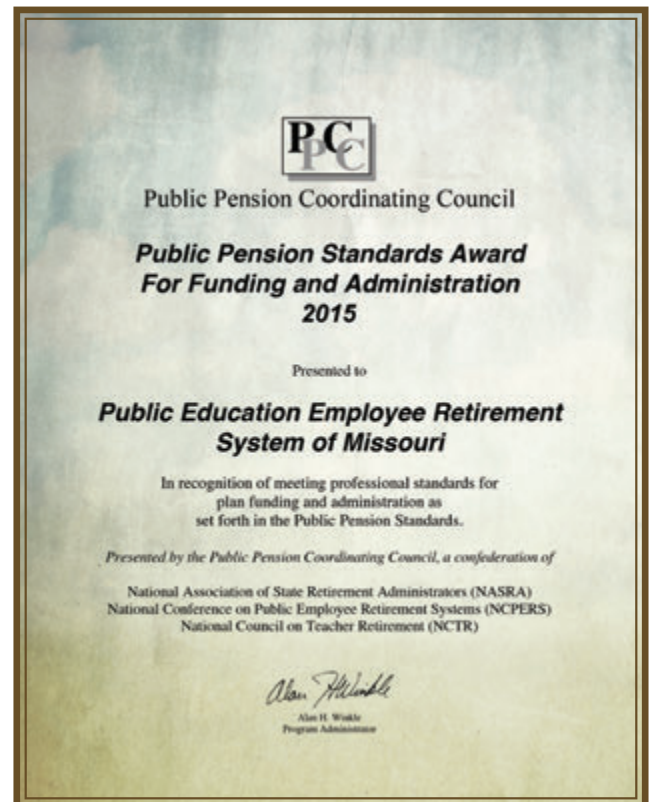
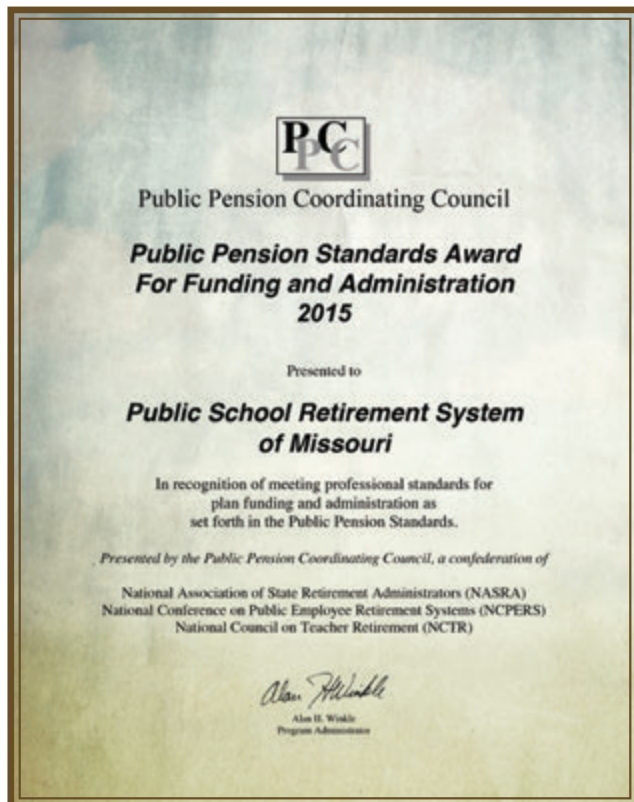
Anita Brand, CPA  
Chief Financial Officer



## Certificate of Achievement for Excellence in Financial Reporting



## Public Pension Coordinating Council Public Pension Standards Awards



## 2015 Investor Intelligence Awards/Executive Director of the Year



## Executive Director of the Year

In April 2015, Steve Yoakum, executive director of the Public School and Education Employee Retirement Systems of Missouri (PSRS/PEERS), was named Executive Director of the Year by *Institutional Investor* – *Investor Intelligence Network*.

The annual Investor Intelligence Award is an honor that reflects industry-wide recognition of accomplishments during the past year. Nominees are selected by their peers at the world's largest pension funds, foundations, endowments and sovereign pools.

This award is the culmination of the dedication, teamwork and knowledge of the entire PSRS/PEERS staff, management and Board of Trustees.



## Administrative Organization



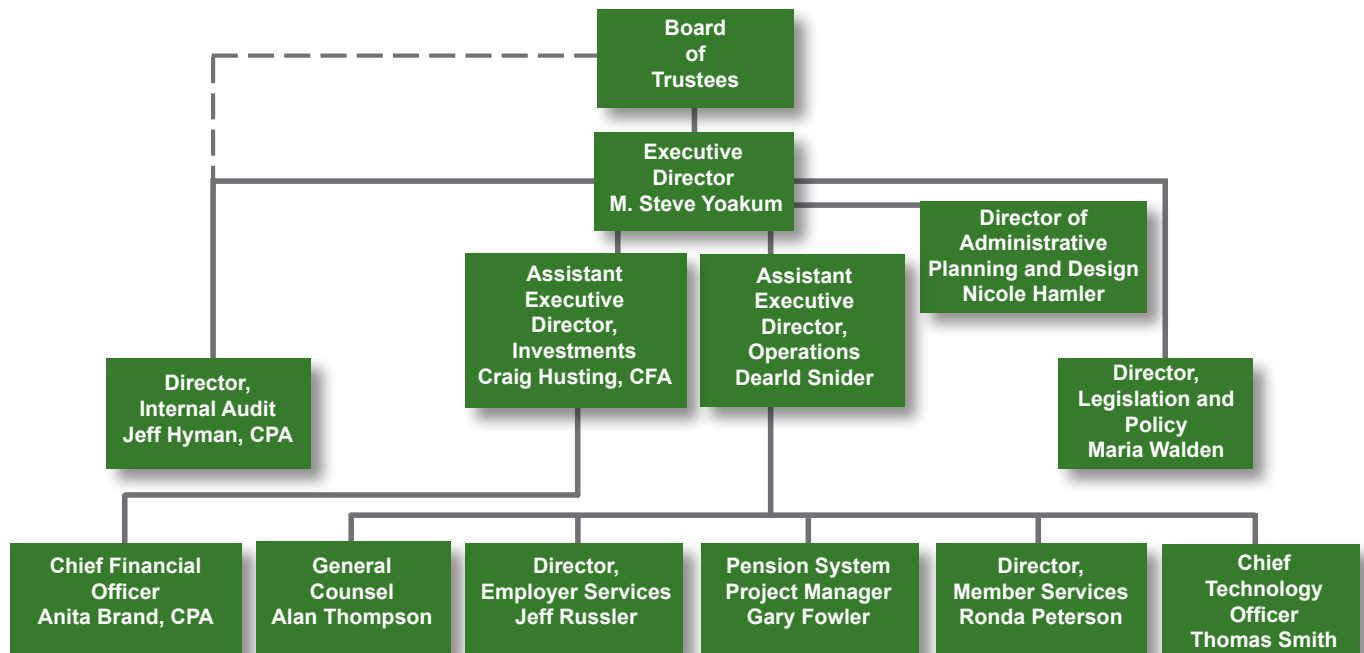
**M. Steve Yoakum**  
Executive Director



**Craig Hustung, CFA**  
Assistant Executive  
Director, Investments



**Dearld Snider**  
Assistant Executive  
Director, Operations



## Professional Services

*June 30, 2015*

### Actuaries

**PricewaterhouseCoopers, LLC**

Cindy Fraterrigo, FSA, EA, MAAA  
Brandon Robertson, ASA, EA, MAAA  
Chicago, Illinois  
New York, NY

### Auditor

**Williams Keepers, LLC**

Heidi A. Chick, CPA  
Nick Mestres, CPA  
Columbia, Missouri

### Technology Consultants

**AOS**

Adrian Archer  
Fenton, Missouri

**Analytics 8**

Annelise Lynch  
Chicago, Illinois

**Fishnet Security, Inc.**

Robert Richardson  
Chicago, Illinois

**Huber & Associates**

James Huber  
Jefferson City, Missouri

**L.R. Wechsler, Ltd.**

Ben Lott  
William Morrow  
Fairfax, Virginia

**Nexum**

Mike Scher  
Chicago, Illinois

**PSC Group**

Patrick Terry  
Schaumburg, Illinois

**Sagitec Solutions, LLC**

Rod Sheppard  
Jeff Freeman  
Roseville, Minnesota

**Towner Communication Systems**

Mark Towner  
Jefferson City, Missouri

### Insurance Consultants

**Charlesworth & Associates**

Bob Charlesworth  
Overland Park, Kansas

**The Insurance Group**

Jason Swindle  
Columbia, Missouri

**Wallstreet Insurance Group**

Lee Wilbers  
Jefferson City, Missouri

### Other Consultants

**Cortex**

Tom Iannucci  
Toronto, Ontario

### Legal Counsel

**Groom Law Group**

David Levine  
Washington, D.C.

**Pillsbury, Winthrop, Shaw, Pittman, LLP**

Dulcie Brand  
Los Angeles, California

**Thompson Coburn, LLP**

Allen Allred  
St. Louis, Missouri

### Legislative Consultant

**James R. Moody & Associates**

James "Jim" Moody  
Jefferson City, Missouri

### Medical Advisor

**Andrew Matera, M.D.**

Columbia, Missouri

Investment Management, Custodial and Consulting fees can be found in the Schedule of Investment Expenses on page 88. Schedules of broker commissions can be found on page 86. Additional information on Investment Managers can also be found in the Investment Section of this report.



## Financial Security

### Peace of Mind for Your Family

As a member of PSRS/PEERS, you are providing financial protection for your loved ones, right now and throughout your career. Disability benefits are available to members who qualify, and survivor benefits are available for the beneficiaries of members who die before reaching retirement. At retirement, you choose a benefit plan that fits your needs, providing the level of financial protection you desire for your loved ones.

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# Independent Auditors' Report



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The Board of Trustees of the  
Public School and Public Education Employee  
Retirement Systems of Missouri

We have audited the accompanying financial statements of the Public School and Public Education Employee Retirement Systems of Missouri (the Systems), which comprise the statements of plan net position as of June 30, 2015, the related statements of changes in plan net position for the year then ended, and the related notes to the financial statements.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditors' Responsibility*

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with U.S. generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

### *Opinions*

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Public School and Public Education Employee Retirement Systems of Missouri as of June 30, 2015, and the respective changes in financial position for the year then ended, in conformity with U.S. generally accepted accounting principles.

## Independent Auditors' Report, continued

*Other Matters**Prior Year Information*

The prior year combined total information has been derived from the Systems' 2014 financial statements and, in our report dated December 1, 2014, we expressed unqualified opinions on the respective financial statements of the Systems' net position.

*Required Supplementary Information*

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 15-19, schedules related to the defined benefit plans (schedules of changes in the employers' net pension liability, employers' net pension liability, employer contributions, investment returns, and notes to schedules) on pages 39-41, and schedules related to the defined benefit OPEB plan (schedules of funding progress, employer contributions, and notes to schedules) on page 42 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context.

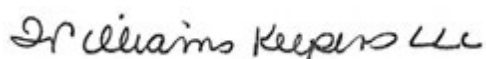
We have applied certain limited procedures to the required supplementary information in accordance with U.S. generally accepted auditing standards, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

*Other Information*

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Public School and Public Education Employee Retirement Systems of Missouri basic financial statements. The introductory, investment, actuarial and statistical sections and the additional information presented on pages 43-44 are presented for purposes of additional analysis and are not a required part of the financial statements.

The additional information presented on pages 43-44 is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with U.S. generally accepted auditing standards. In our opinion, the additional information presented on pages 43-44 is fairly stated in all material respects in relation to the basic financial statements as a whole.

The introductory, investment, actuarial and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.



October 30, 2015



# Management's Discussion and Analysis

## Introduction

This discussion and analysis of the financial position of the Public School Retirement System of Missouri (PSRS) and the Public Education Employee Retirement System of Missouri (PEERS), collectively referred to as the Systems, provides an overview of the Systems' financial activities for the fiscal year ended June 30, 2015. We encourage you to consider the information presented here in conjunction with additional information presented in the financial statements and required supplementary information.

## Financial Highlights

The following highlights are explained in more detail for each System later in this discussion.

- The net position of the combined Systems increased by \$0.6 billion. The net position of PSRS increased by \$0.5 billion while the net position of PEERS increased by \$137.1 million.
- The Systems earned an investment return of 4.3% (net of all investment expenses and fees) for the fiscal year ended June 30, 2015. The total plan return exceeded the total plan policy benchmark of 3.5% but fell short of the long-term objective (actuarial assumption) of 8.0%. However, over long periods of time, the Systems continue to produce investment returns that meet or exceed the Systems' objective. The annualized investment return for the Systems over the last five years is 11.3%, and 9.1% over the last 30 years.
- The investment return for fiscal year 2015 was lower than expected but far better than most other institutional investors. For example, the Systems' investment return for fiscal year 2015 exceeded 85% of the peer group as defined by the Wilshire TUCS universe of public pension plans with assets in excess of \$1 billion. Additionally, the Systems generated the fiscal year 2015 return (and longer-term investment returns) while taking less risk than approximately two-thirds of comparable public funds in the United States.
- As of June 30, 2015, PSRS' fiduciary net position as a percentage of the total pension liability was 85.8% and the net pension liability approximated \$5.8 billion. PEERS' fiduciary net position as a percentage of the total pension liability was 88.3% and the net pension liability approximated \$528.9 million as of June 30, 2015.
- Total revenues for fiscal year 2015 were comprised of contribution revenue of \$1.56 billion and investment gains of \$1.61 billion, compared to contribution revenue of \$1.53 billion and investment gains of \$5.5 billion for fiscal year 2014.
- Expenses increased 4.5% over the prior year from \$2.5 billion to \$2.6 billion. Retirement benefits and member refunds increased by \$108.2 million from the prior year, while administrative expenses increased by \$1.9 million during the same time period.

## Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the financial report of the Systems. The financial report consists of: the basic financial statements comprised of the Statements of Fiduciary Net Position and the Statements of Changes in Fiduciary Net Position, the notes to the basic financial statements, required supplementary information and other supplementary information.

The Statements of Fiduciary Net Position present information on the assets and liabilities of the Systems, with the difference between the two reported as net position. The net position of the Systems reflects the resources available to pay benefits to members when due. Over time, increases and decreases in net position measure whether the Systems' financial position is improving or deteriorating.

The Statements of Changes in Fiduciary Net Position present information detailing the changes in net position that occurred during the current fiscal year. All changes in net position are reported on an accrual basis. This means that the revenue or expense is recognized as soon as the underlying event giving rise to the change occurs, regardless of when the actual cash is received or paid. Thus, revenues and expenses are reported in this statement for some items that will not result in cash flows until future fiscal periods. For example, contributions due from an employer, even though not yet paid by year end, will be reflected as revenue. Earned vacation accruals will be reflected as an expense, even though they have not been paid to employees.

The notes to the financial statements provide additional information that is essential to a full understanding of the data provided in the financial statements. The notes can be found on pages 22 through 38.

The report also contains required supplementary information in addition to the basic financial statements themselves. The required supplementary information consists of the following schedules and related notes:

- The Schedules of Changes in the Employers' Net Pension Liability include historical trend information about the annual changes of the net pension liability, including assumption changes and variances of assumed experience. These schedules were effective June 30, 2014, under GASB No. 67. Additional years of data will be displayed as they become available.
- The Schedules of Employers' Net Pension Liability include historical trend information about whether each System's net position is increasing or decreasing over time relative to the total pension liability. The schedules provide a long-term, ongoing perspective of the accumulation assets to pay benefits when due. These schedules were effective June 30, 2014, under GASB No. 67. Additional years of data will be displayed as they become available.
- The Schedules of Employer Contributions present historical trend information about the annual determined contributions of employers and the actual contributions made by employers.
- The Schedules of Investment Returns present historical annual money-weighted rate of returns. These schedules were effective June 30, 2014, under GASB No. 67. Additional years of data will be displayed as they become available.
- The Schedule of Funding Progress includes historical trend information about the actuarially funded status of the defined benefit other post-employment benefit (OPEB) plan from a long-term, ongoing perspective and the progress made in accumulating assets to pay benefits when due.
- The Schedule of Employer Contributions presents historical trend information about the annual required contributions of the employer and the actual employer contributions made for the defined benefit OPEB plan.
- The Notes to the Schedules of Required Supplementary Information provide additional information that is essential to a full understanding of the data provided in the schedules.

Other supplementary schedules are also included. The Schedules of Administrative Expenses present the overall cost of administering the Systems. The Schedules of Professional Services further detail this category of administrative expense. The Schedules of Investment

Expenses show the costs associated with investing the assets of the Systems. These expenses are shown as a reduction of revenue on the Statements of Changes in Fiduciary Net Position.

## Financial Analysis of the Public School Retirement System of Missouri (PSRS)

PSRS is a mandatory cost-sharing multiple employer retirement system for full-time certificated employees and certain part-time employees of participating employers. PSRS members were required to contribute 14.5% of their annual covered salary during fiscal year 2015. The employer was required to match that amount. Most PSRS members do not contribute to Social Security, except for employees hired after 1986 who contribute to Medicare only. In some instances, positions may be determined not to be exempt from Social Security contributions. PSRS members required to contribute to Social Security are required to contribute two-thirds of the approved PSRS contribution rate and their employer is required to match the contribution. The members' benefits are further calculated at two-thirds the normal benefit amount.

Public School Retirement System of Missouri Fiduciary Net Position (000's)			
	2015	2014	Change
Cash & investments	\$ 35,420,157	\$ 34,978,991	\$ 441,166
Receivables	1,694,592	1,764,424	(69,832)
Other	26,100	24,244	1,856
Total assets	37,140,849	36,767,659	373,190
Total liabilities	2,303,169	2,387,050	(83,881)
Fiduciary net position	\$ 34,837,680	\$ 34,380,609	\$ 457,071

## Assets

Total assets of PSRS as of June 30, 2015 were \$37.1 billion and were mostly comprised of cash, investments, investment sales receivables and contributions due from employers. Total assets increased by \$373.2 million or 1.0% from the prior year due to investment gains and contribution revenue exceeding benefit payments and other expenses.

## Liabilities

Total liabilities as of June 30, 2015, were \$2.3 billion and were mostly comprised of payables from the purchase of investments and obligations under security lending arrangements. Total liabilities decreased by \$83.9 million from the prior year. This was due to a decrease of both investment purchase liabilities and obligations under security lending arrangements.



## Net Position

PSRS assets exceeded liabilities at June 30, 2015, by \$34.8 billion. This was an increase of \$0.5 billion from the 2014 net position. This increase was a result of investment earnings that totaled \$1.5 billion for the year offset by benefit payments and other expenses which exceeded contribution revenue by \$1 billion.

Public School Retirement System of Missouri Changes in Fiduciary Net Position (000's)			
	2015	2014	Change
<b>Additions</b>			
Member contributions	\$ 689,187	\$ 679,391	\$ 9,796
Employer contributions	656,925	643,990	12,935
Investment income	1,447,144	4,927,192	(3,480,048)
Other	26	6	20
Total additions	2,793,282	6,250,579	(3,457,297)
<b>Deductions</b>			
Monthly benefits	2,270,259	2,180,547	89,712
Refunds of contributions	55,938	55,921	17
Administrative expenses	10,012	8,903	1,109
Other	2	16	(14)
Total deductions	2,336,211	2,245,387	90,824
Change in fiduciary net position	\$ 457,071	\$ 4,005,192	\$(3,548,121)

## Revenues – Additions to Fiduciary Net Position

The reserves needed to finance retirement benefits are accumulated through the collection of employer and employee contributions and through investment earnings. Total contribution revenue for the year increased by \$22.7 million to \$1.3 billion. This was a 1.7% increase over the prior year. Retirement contributions were calculated at 14.5% of retirement salary for each member during fiscal year 2015. The employer matched this amount. Contribution rates were unchanged from the prior year. In addition to contributions on salary, members may also pay contributions to reinstate previously refunded service or to purchase various types of elective service. Such contributions for the year decreased by \$2.8 million. An increased salary base and the addition of over 5,400 new members resulted in the overall increase in contributions.

The net investment gain was \$1.5 billion as compared to a net investment gain of \$4.9 billion in 2014. The current year gains are reflective of a 4.3% net return on the Systems' diversified investment portfolio. All investment related expenses, such as fees paid to investment managers, are reflected as a reduction in revenue and are accounted for in this net figure.

## Expenses – Deductions from Fiduciary Net Position

The primary expenses of PSRS include the payment of pension benefits to members and beneficiaries, refunds of contributions to former members, and the cost of administering the System. Total expenses for fiscal year 2015 were \$2.3 billion, an increase of 4.0% over fiscal year 2014.

Benefit expenses increased by \$89.7 million to \$2.27 billion. This was a result of the addition of 2,645 new service and disability retirees. There were no changes to the benefit formula during 2015. Refunds of contributions of \$55.9 million were consistent with the prior year.

Administrative expenses increased by \$1.1 million to \$10.0 million. The increase in expenditures is related to software maintenance agreements on the newly implemented pension administration system. The cost of administrative items was charged 62% to PSRS and 38% to PEERS, unless the expense was determined to be of direct benefit to only one System. In such instance, the allocation of expense was 100% to the benefited System. As always, we will continue to look for ways to streamline costs when prudent.

## Financial Analysis of the Public Education Employee Retirement System of Missouri (PEERS)

PEERS is a mandatory cost-sharing multiple employer retirement system for non-certificated employees and certain part-time certificated employees of participating employers. PEERS members were required to contribute 6.86% of their annual covered salary during 2015. The employer was required to match that amount. PEERS members also contribute to Social Security.

Public Education Employee Retirement System of Missouri Fiduciary Net Position (000's)			
	2015	2014	Change
Cash & investments	\$ 4,053,592	\$ 3,912,377	\$ 141,215
Receivables	193,689	201,609	(7,920)
Other	-	30	(30)
Total assets	4,247,281	4,114,016	133,265
Total liabilities	263,871	267,693	(3,822)
Fiduciary net position	\$ 3,983,410	\$ 3,846,323	\$ 137,087

## Assets

Total assets of PEERS as of June 30, 2015 were \$4.2 billion and were mostly comprised of cash, investments, investment sales receivables and contributions due from employers. Total assets increased by \$133.3 million or 3.2% from the prior year due to investment gains and contribution revenue exceeding benefit payments and other expenses.

## Liabilities

Total liabilities as of June 30, 2015 were \$263.8 million and were mostly comprised of payables from the purchase of investments and obligations under security lending arrangements. Total liabilities decreased by \$3.8 million. This was due to a decrease of both investment purchase liabilities and obligations under security lending arrangements.

## Net Position

PEERS assets exceeded liabilities at June 30, 2015 by \$3.98 billion. This was up from the 2014 net position of \$3.85 billion by \$137.1 million. This increase was a result of investment earnings that totaled \$163.7 million for the year offset by benefit payments and other expenses which exceeded contribution revenue by \$26.6 million.

## Revenues – Additions to Fiduciary Net Position

The reserves needed to finance retirement benefits are accumulated through the collection of employer and employee contributions and through investment earnings. Total contribution revenue for the year increased by \$6.9 million to \$214.1 million. Retirement contributions were calculated at 6.86% of retirement salary for each member during fiscal year 2015. The employer matched this amount. Contribution rates were unchanged from the prior year. Overall contribution revenue increased by 3.4%. In addition to contributions on salary, members may also pay contributions to reinstate previously refunded service or to purchase various types of elective service. Such contributions for the year increased by \$1.1 million. The remainder of increase in total contributions is attributable to a higher salary base and the addition of almost 8,000 new members.

The net investment gain was \$163.7 million as compared to a net investment gain of \$544.2 million in 2014. The current year gains are reflective of a 4.3% net return on the Systems' diversified investment portfolio. All investment related expenses, such as fees paid to investment managers, are reflected as a reduction in revenue and are accounted for in this net figure.

## Expenses – Deductions from Fiduciary Net Position

The primary expenses of PEERS include the payment of pension benefits to members and beneficiaries, refunds of contributions to former members, and the cost of administering the System. Total expenses for fiscal year 2015 were \$240.7 million, an increase of 8.7% over fiscal year 2014.

Benefit expenses increased by \$18.5 million to \$215.2 million. This was a result of the addition of 1,945 new service and disability retirees. There were no changes to the benefit formula during 2015. Refunds of contributions of \$19.8 million were consistent with the prior year.

**Public Education Employee Retirement System of Missouri**  
**Changes in Fiduciary Net Position (000's)**

	2015	2014	Change
<b>Additions</b>			
Member contributions	\$ 110,444	\$ 106,421	\$ 4,023
Employer contributions	103,624	100,700	2,924
Investment income	163,718	544,154	(380,436)
Total additions	377,786	751,275	(373,489)
<b>Deductions</b>			
Monthly benefits	215,242	196,745	18,497
Refunds of contributions	19,828	19,880	(52)
Administrative expenses	5,629	4,838	791
Other	-	2	(2)
Total deductions	240,699	221,465	19,234
Change in fiduciary net position	\$ 137,087	\$ 529,810	\$(392,723)



Administrative expenses marginally increased by \$0.8 million. The increase in expenditures is related to software maintenance agreements on the newly implemented pension administration system. The cost of administrative items was charged 62% to PSRS and 38% to PEERS, unless the expense was determined to be of direct benefit to only one System. In such instance, the allocation of expense was 100% to the benefited System. As always, we will continue to look for ways to streamline costs when prudent.

## Summary

The total net returns of 4.3% for PSRS and PEERS exceeded the total plan policy benchmark of 3.5% but fell short of the long-term objective (actuarial assumption) of 8.0%. Due to the long-term nature of defined benefit pension plans, it is important to look at the financial performance of the Systems over a period of years and not just at this single point in time. Over long periods of time, the Systems continue to produce investment returns that meet or exceed the Systems' objectives. The annualized investment returns for the Systems over the last 30 years is 9.1%.

The Systems' funding objective is to achieve a funded ratio of 100% over a closed 30-year period from fiscal year 2011 through fiscal year 2040. For this purpose, funded ratio is defined as the actuarial value of assets divided by the actuarial accrued liability determined under the entry age normal cost method and the actuarial assumptions adopted by the Board.

The actuary recommended the fiscal year 2017 contribution rates remain unchanged from the fiscal year 2016 rates. The recommended fiscal year 2017 contribution rate for PSRS remains 29.0%. The recommended fiscal year 2017 contribution rate for PEERS remains 13.72%. The fiscal year 2017 contribution rates are in compliance PSRS/PEERS' Board of Trustees' Funding Policy and represent the fifth consecutive year of stable contribution rates for employers and members.

The Board of Trustees, management and staff continually strive to improve the financial position of the Systems through a prudent investment program and long-term strategic planning.

## Requests for Information

This financial report is designed to provide the Board of Trustees, our members, and other users of our financial report with a general overview of the Systems' finances and to demonstrate the Systems' accountability for the money it receives. If you have any questions about this report or need additional financial information, contact the Public School and Education Employee Retirement Systems of Missouri (PSRS/PEERS), P.O. Box 268, Jefferson City, MO 65102.

Public School Retirement System of Missouri  
Public Education Employee Retirement System of Missouri  
Statements of Fiduciary Net Position

*as of June 30, 2015*  
*with comparative totals for June 30, 2014*

			Combined Totals	
	PSRS	PEERS	June 30, 2015	June 30, 2014
<b>ASSETS</b>				
Cash	\$ 94,627,025	\$ 13,810,904	\$ 108,437,929	\$ 142,995,948
Receivables				
Contributions	205,995,396	23,999,644	229,995,040	244,725,055
Accrued interest and dividends	62,831,778	7,158,024	69,989,802	62,869,837
Investment sales	1,425,644,974	162,514,953	1,588,159,927	1,656,340,649
Due from PEERS	103,806	-	103,806	1,901,569
Other	15,761	16,185	31,946	183,146
Total receivables	1,694,591,715	193,688,806	1,888,280,521	1,966,020,256
Investments, at fair value				
U.S. Treasuries and TIPS	6,060,862,509	692,481,487	6,753,343,996	5,749,468,584
U.S. public equities	10,661,524,996	1,219,893,482	11,881,418,478	12,203,981,764
Non-U.S. public equities	5,326,855,987	608,910,645	5,935,766,632	5,700,607,736
Short term investments	661,972,414	77,421,596	739,394,010	816,165,063
Public debt	2,191,690,487	250,023,109	2,441,713,596	2,976,993,599
Private equity	2,589,918,813	295,911,249	2,885,830,062	2,655,536,082
Private credit	265,880,301	30,378,161	296,258,462	386,216,087
Private real estate	2,494,626,713	285,023,647	2,779,650,360	2,633,564,746
Hedged assets	4,699,137,925	537,114,758	5,236,252,683	5,197,839,895
Total investments	34,952,470,145	3,997,158,134	38,949,628,279	38,320,373,556
Invested securities lending collateral	373,059,810	42,623,959	415,683,769	427,997,986
Prepaid expenses	85,515	-	85,515	412,545
Capital assets, net of accumulated depreciation	26,014,091	-	26,014,091	23,861,742
Total assets	37,140,848,301	4,247,281,803	41,388,130,104	40,881,662,033
<b>LIABILITIES</b>				
Accounts payable	15,921,395	1,840,032	17,761,427	18,564,986
Interest payable	108,438	12,029	120,467	162,904
Securities lending collateral	373,056,712	42,623,605	415,680,317	427,998,807
Investment purchases	1,911,620,392	217,909,234	2,129,529,626	2,202,808,421
Due to PSRS	-	103,806	103,806	1,901,569
Accrued medical claims	75,000	-	75,000	75,000
Net other post employment benefit obligation	1,051,271	646,329	1,697,600	1,452,400
Compensated absences	1,335,588	735,947	2,071,535	1,766,500
Total liabilities	2,303,168,796	263,870,982	2,567,039,778	2,654,730,587
<b>NET POSITION - RESTRICTED FOR PENSIONS</b>				
	\$ 34,837,679,505	\$ 3,983,410,821	\$ 38,821,090,326	\$ 38,226,931,446

See accompanying Notes to the Financial Statements.



Public School Retirement System of Missouri  
Public Education Employee Retirement System of Missouri  
Statements of Changes in Fiduciary Net Position

*for the year ended June 30, 2015  
with comparative totals for the year ended June 30, 2014*

	Combined Totals Year Ended			
	PSRS	PEERS	June 30, 2015	June 30, 2014
<b>ADDITIONS</b>				
Contributions				
Employer	\$ 656,924,899	\$ 103,624,310	\$ 760,549,209	\$ 744,689,604
Member	689,187,215	110,443,660	799,630,875	785,811,574
Total contributions	1,346,112,114	214,067,970	1,560,180,084	1,530,501,178
Investment income				
<i>From investing activities:</i>				
Net appreciation in fair value of investments	1,504,338,299	169,311,476	1,673,649,775	5,686,283,837
Interest from investments	177,276,639	20,033,649	197,310,288	182,024,528
Interest from bank deposits	35,026	2,636	37,662	58,492
Dividends	165,308,030	18,699,592	184,007,622	169,633,226
Total investment income	1,846,957,994	208,047,353	2,055,005,347	6,038,000,083
Less investment expenses	403,375,033	44,732,485	448,107,518	570,401,971
Net income from investing activities	1,443,582,961	163,314,868	1,606,897,829	5,467,598,112
<i>From security lending activities:</i>				
Security lending gross income	1,188,380	139,154	1,327,534	1,187,404
Net (depreciation) appreciation in fair value of security lending collateral	3,835	438	4,273	(11,688)
Less security lending activity expenses:				
Agent fees	890,224	98,914	989,138	860,732
Broker rebates paid (received)	(3,258,681)	(362,076)	(3,620,757)	(3,433,266)
Total security lending expenses	(2,368,457)	(263,162)	(2,631,619)	(2,572,534)
Net income from security lending activities	3,560,672	402,754	3,963,426	3,748,250
Total net investment income	1,447,143,633	163,717,622	1,610,861,255	5,471,346,362
Other income				
Miscellaneous income	25,572	2,075	27,647	7,148
Total other income	25,572	2,075	27,647	7,148
Total additions	2,793,281,319	377,787,667	3,171,068,986	7,001,854,688
<b>DEDUCTIONS</b>				
Monthly benefits	2,270,258,828	215,242,490	2,485,501,318	2,377,291,640
Refunds of contributions	55,937,945	19,827,691	75,765,636	75,801,577
Administrative expenses	10,011,961	5,629,203	15,641,164	13,740,531
Other expenses	1,640	348	1,988	19,083
Total deductions	2,336,210,374	240,699,732	2,576,910,106	2,466,852,831
Net increase in net position	457,070,945	137,087,935	594,158,880	4,535,001,857
<b>NET POSITION - RESTRICTED FOR PENSIONS</b>				
Beginning of year	34,380,608,560	3,846,322,886	38,226,931,446	33,691,929,589
End of year	\$ 34,837,679,505	\$ 3,983,410,821	\$ 38,821,090,326	\$ 38,226,931,446

See accompanying Notes to the Financial Statements.

## Notes to the Financial Statements

### Note 1 - Plan Descriptions

The Board of Trustees of the Public School Retirement System of Missouri administers two separate retirement systems, the Public School Retirement System of Missouri (PSRS) and the Public Education Employee Retirement System of Missouri (PEERS). The Board of Trustees consists of seven members, three of whom are elected PSRS active members, one an elected active member of PEERS and three persons appointed by the governor, one of whom must be a retired member of either PSRS or PEERS.

The funds of the two Systems are managed simultaneously. Investments of the Systems are combined in a commingled investment pool as allowed by state statute. Each System owns an equity position in the pool and receives proportionate investment income from the pool in accordance with their respective ownership percentage. Each System's allocated share of each type of investment in the pool is shown on the Statements of Net Position. Investment gains and losses are reported in the Statements of Changes in Net Position. Each System's assets may be used only for the payment of benefits to the members of the separate System in accordance with the statutes governing that System as well as expenses required to administer the System.

#### The Public School Retirement System of Missouri (PSRS)

PSRS is a mandatory cost-sharing multiple employer retirement system for all full-time certificated employees and certain part-time certificated employees of all public school districts in Missouri (except the school districts of St. Louis and Kansas City) and all public community colleges. The System also includes certificated employees of PSRS, Missouri State Teachers' Association, Missouri State High School Activities Association, and certain employees of the state of Missouri who elected to remain covered by PSRS under legislation enacted in 1986, 1987 and 1989. The majority of PSRS members are exempt from Social Security contributions. In some instances, positions may be determined not to be exempt from Social Security contributions. Any PSRS member who is required to contribute to Social Security comes under the requirements of Section 169.070 (9) RSMo, known as the "2/3's statute." PSRS members required to contribute to Social Security are required to contribute two-thirds of the approved PSRS contribution rate and their employer is required to match the contribution.

The members' benefits are further calculated at two-thirds the normal benefit amount.

PSRS was established as an independent trust fund by an Act of the Missouri General Assembly effective August 1, 1945. Statutes governing the System are found in Sections 169.010-169.141 and Sections 169.560-169.595 RSMo. It is a defined benefit plan providing service retirement, death and disability benefits to its members. Members are vested for service retirement benefits after accruing five years of service. Individuals who (a) are at least age 60 and have a minimum of 5 years of service, (b) have 30 years of service, or (c) qualify for benefits under the "Rule of 80" (service and age total at least 80) are entitled to a monthly benefit for life, which is calculated using a 2.5% benefit factor. Actuarially age-reduced benefits are available for members with five to 24.9 years of service at age 55 or with 25 years of service (if not yet age 55). Members who are younger than age 55 and who do not qualify under the "Rule of 80" but have between 25 and 29.9 years of service may retire with a lesser benefit factor. Members that are three years beyond normal retirement can elect to have their lifetime monthly benefits actuarially reduced in exchange for the right to also receive a one-time partial lump sum (PLSO) payment at retirement equal to 12, 24, or 36 times the Single Life benefit amount. Annual cost-of-living adjustments (COLAs) are provided for eligible service and disability retirees and for surviving beneficiaries receiving payments under optional benefit plans, up to a lifetime maximum of 80% of the original benefit amount.

**Contributions** – PSRS members were required to contribute 14.5% of their annual covered salary during fiscal year 2015. Employers were required to match the contributions made by employees. The contribution rate is set each year by the PSRS/PEERS Board of Trustees upon the recommendation of the independent actuary within the contribution restrictions set in Section 169.030 RSMo. The annual statutory increase in the total contribution rate may not exceed 1% of pay. Administrative costs are financed through investment earnings. Contributions for employees of the state of Missouri were made by the state in accordance with the actuarially determined contribution rate needed to fund current costs and prior service costs of state employees as authorized in Section 104.342.8 RSMo.



**Members** – The number of PSRS members and benefit recipients served by the System at June 30, 2015:

Retirees and beneficiaries receiving benefits	56,121
Inactive members entitled to, but not yet receiving benefits	7,664
Active members:	
Vested	58,788
Non-vested	<u>19,530</u>
Total active members	78,318
Other inactive members and terminated accounts	<u>8,596</u>
Total	<u>150,699</u>

**Employers** – PSRS had 535 contributing employers during fiscal year 2015.

### The Public Education Employee Retirement System of Missouri (PEERS)

PEERS is a mandatory cost-sharing multiple employer retirement system for all public school district employees (except the school districts of St. Louis and Kansas City), employees of the Missouri Association of School Administrators, and community college employees (except the Community College of St. Louis). Employees of covered districts who work 20 or more hours per week on a regular basis and who are not contributing members of the Public School Retirement System of Missouri (PSRS) must contribute to PEERS. Employees of PSRS who do not hold Missouri educator certificates also contribute to PEERS.

PEERS was established as a trust fund by an Act of the Missouri General Assembly effective October 13, 1965. Statutes governing the System are found in Sections 169.600 - 169.715 and Sections 169.560-169.595 RSMo. The statutes place responsibility for the operation of PEERS on the Board of Trustees of the Public School Retirement System of Missouri.

PEERS is a defined benefit plan providing service retirement and disability benefits to its members. Members are vested for service retirement benefits after accruing five years of service. Individuals who (a) are at least age 60 and have a minimum of five years of service, (b) have 30 years of service, or (c) qualify for benefits under the “Rule of 80” (service and age total at least 80) are entitled to a monthly benefit for life, which is calculated using a 1.61% benefit factor. Members qualifying for “Rule of 80” or “30-and-out” are entitled

to an additional temporary .8% benefit multiplier until reaching minimum Social Security age (currently age 62). Actuarially age-reduced retirement benefits are available with five years of service at age 55. Members who are younger than age 55 and who do not qualify under the “Rule of 80” but have between 25 and 29.9 years of service may retire with a lesser benefit factor. Members that are three years beyond normal retirement can elect to have their lifetime monthly benefits actuarially reduced in exchange for the right to also receive a one-time partial lump sum (PLSO) payment at retirement equal to 12, 24, or 36 times the Single Life benefit amount. Annual cost-of-living adjustments (COLAs) up to a lifetime maximum of 80% of the original benefit amount are provided for eligible service and disability retirees and for surviving beneficiaries receiving payments under optional benefit plans.

**Contributions** – PEERS members were required to contribute 6.86% of their annual covered salary during fiscal year 2015. Employers were required to match the contributions made by their employees. The contribution rate is set each year by the PSRS/PEERS Board of Trustees upon the recommendation of the independent actuary within the contribution restrictions in Section 169.620 RSMo. The annual statutory increase in the total contribution rate may not exceed 0.5% of pay. Administrative costs proportional to its membership size are reimbursed by PEERS to the Public School Retirement System of Missouri (PSRS) and are financed through investment earnings.

**Members** - The number of PEERS members and benefit recipients served by the System at June 30, 2015:

Retirees and beneficiaries receiving benefits	26,298
Inactive members entitled to, but not yet receiving benefits	6,157
Active members:	
Vested	27,958
Non-vested	<u>18,906</u>
Total active members	46,864
Other inactive members and terminated accounts	<u>24,842</u>
Total	<u>104,161</u>

**Employers** – PEERS had 532 contributing employers during fiscal year 2015.

## Note 2 – Summary of Significant Accounting Policies

**Basis of Accounting** – The financial statements of both Systems were prepared using the accrual basis of accounting. For both Systems, member and employer contributions are recognized when due, pursuant to formal commitments and statutory requirements. Benefits and refunds are recognized when due and payable in accordance with the statutes governing the Systems. Expenses are recognized when the liability is incurred, regardless of when payment is made. Administrative expenses are funded through investment earnings.

**Cash** – Cash includes cash on hand, demand deposits, and short-term investments with original maturities of three months or less from the date of acquisition.

**Receivables** – Receivables consist primarily of contributions owed and yet to be remitted by employers, pending investment trades and interest and dividends payable to the Systems as of the end of each fiscal year.

**Method Used to Value Investments** – Investments are reported at fair value on a trade date basis. The fair value of investments is based on published market prices and quotations from major investment brokers at current exchange rates, as available. Many factors are considered in arriving at fair value. Fixed income securities not traded on a national or international exchange are based on equivalent values of comparable securities with similar yield and risk. The value of real estate investments is based on estimated current values and independent appraisals. The value of private equity investments that do not have an established market is determined based upon the most current net asset values and activities through year end. When values are not readily available, alternative investments are valued based on a good faith determination by the General Partner.

**Capital Assets** – The building and other capital assets are owned by PSRS and are stated at cost less depreciation accumulated since acquisition. The stated value does not purport to represent replacement or realized value. Costs of major additions and improvements are capitalized. Expenditures for maintenance and repairs are charged to operations as incurred. Depreciation is calculated using the straight-line method, with estimated lives ranging from three to 40 years in the following major classes: computers and software, three years; vehicles, five years; equipment, five years; building and land improvements, 15 years; building, 40 years.

PSRS allocates depreciation expense to PEERS for the use of capital assets.

**Estimates** – The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of net position restricted for pension benefits at June 30, 2015. Actual results could differ from those estimates.

**Total Columns:** The financial statements include total column information for the prior year. Such information does not include sufficient detail to constitute a presentation in conformity with U.S. generally accepted accounting principles. Accordingly, such information should be read in conjunction with both Systems' financial statements for the year ended June 30, 2014, from which the information was derived. Certain reclassifications have been made to the 2014 totals to conform with the classifications for 2015.

### Note 3 – Designations of Net Position – Restricted for Pensions

The Systems designate the net position – restricted for pensions for the following specific purposes:

#### Public School Retirement System of Missouri

	2015
<b>Designated for Members' Contributions (Member Reserves)</b> – Accumulation of active and terminated member contributions plus interest.	\$ 7,714,058,304
<b>Designated for the Payment of Benefits to Present Retirees</b> – Transfers from Member Reserves at retirement and an actuarially determined transfer from Operating Reserves to fund the System's obligation for benefit payments and cost-of-living adjustments to current retirees and beneficiary recipients.	24,674,170,165
<b>Designated for Operating Expenses/Benefits to Future Retirees (Operating Reserves)</b> – Accumulation of employer contributions and investment income used to fund future benefit payments, interest on member accounts and, administration and maintenance expenses of the System.	<u>2,989,451,036</u>
Net Position – Restricted For Pensions	<u>\$ 34,837,679,505</u>

#### Public Education Employee Retirement System of Missouri

	2015
<b>Designated for Members' Contributions (Member Reserves)</b> – Accumulation of active and terminated member contributions plus interest.	\$ 925,802,264
<b>Designated for the Payment of Benefits to Present Retirees</b> – Transfers from Member Reserves at retirement and an actuarially determined transfer from Operating Reserves to fund the System's obligation for benefit payments and cost-of-living adjustments to current retirees and beneficiary recipients.	2,040,647,078
<b>Designated for Operating Expenses/Benefits to Future Retirees (Operating Reserves)</b> – Accumulation of employer contributions and investment income used to fund future benefit payments, interest on member accounts, and administration and maintenance expenses of the System.	<u>1,016,479</u>
Net Position – Restricted For Pensions	<u>\$ 3,983,410,821</u>



## Note 4 – Deposits, Investments and Securities Lending Program

**Custodial Credit Risks** – Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, the Systems will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the Systems would not be able to recover the value of investment or collateral securities that are in the possession of an outside party. To mitigate custodial credit risk, the Systems require that all deposits be 100% collateralized with securities held in the Systems' name and held by a third party agent.

**Deposits** – Cash balances include short-term securities held by the custodial bank in a pooled short-term investment fund and operating balances held by the depository banks.

At June 30, 2015, the PSRS carrying amount of deposits at the depository bank was \$9,573,214 and the bank balance was \$6,848,390. Of the bank balance, \$250,000 was covered by federal depository insurance. In addition the deposits were collateralized with U.S. agency securities held by a third-party institution in the System's name, totaling \$96,124,818. An additional \$2,717,251 was held in overnight repurchase agreements with a book value of \$2,717,251. The overnight repurchase agreements were collateralized with U.S. agency securities held by a third-party institution in the System's name totaling \$2,717,251.

At June 30, 2015, the PEERS carrying amount of deposits at the depository bank was \$967,109 and the bank balance was \$431,010. Of the bank balance, \$250,000 was covered by federal depository insurance. In addition the deposits were collateralized with U.S. agency securities held by a third-party institution in the System's name, totaling \$4,677,289. An additional \$566,466 was held in overnight repurchase agreements with a book value of \$566,466. The overnight repurchase agreements were collateralized with U.S. agency securities held by a third-party institution in the System's name totaling \$566,466.

**Investment Policy and Asset Allocation** – Funds for both Systems that are in excess of a safe operating balance are invested under policies and procedures established by the Board of Trustees. Chapter 169.040 RSMo as amended effective August 13, 1984, authorizes any investment which a prudent person acting in a like

capacity and familiar with similar matters would use in the conduct of an enterprise of a like character and with like aims. Any person with fiduciary responsibility with respect to the Systems is covered by this "prudent person" rule.

The Board of Trustees of PSRS and PEERS approved the commingling of assets for purposes of investment as allowed by state statute. In order to implement this change, PSRS and PEERS adopted the Missouri Education Pension Trust Agreement. The Missouri Education Pension Trust (MEPT) is managed by the PSRS and PEERS Board of Trustees and Investment Staff. Effective July 1, 2013, the invested assets of the Systems were pooled and invested in MEPT. All assets held by MEPT are for the exclusive benefit of PSRS and PEERS. Each of the Systems has equity in MEPT based on funds contributed and earnings allocated. Earnings of MEPT are allocated based on the average daily balances of each of the respective Systems. Individual investments in MEPT are not specifically identified to the respective Systems. For financial statement presentation, MEPT assets, liabilities, revenues, and expenses have been allocated to and presented in each respective system in the basic financial statements as required by investment pools. Due to the fact all invested assets are invested in MEPT, the rate of return for each of the Systems is approximately the same. The Systems' policy in regard to the allocation of invested assets is established and may be amended by the Board of Trustees. System assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided by the Systems. The following was the Systems' Board of Trustees approved asset allocation as of June 30, 2015:

Investment Type	Long-term Target	Policy Ranges
<i>Public Risk Asset Programs</i>		
U.S. Public Equity	27.0%	16% - 48%
Public Credit	12.0%	0% - 20%
Hedged Assets	6.0%	0% - 25%
Non-U.S. Public Equity	<u>15.0%</u>	<u>8% - 28%</u>
<b>Total Public Risk Assets</b>	<b>60.0%</b>	<b>35% - 75%</b>
<i>Safe Assets</i>		
U.S. Treasuries	16.0%	0% - 40%
U.S. TIPS	4.0%	0% - 40%
Cash Equivalents	<u>0.0%</u>	<u>0% - 10%</u>
<b>Total Safe Assets</b>	<b>20.0%</b>	<b>10% - 40%</b>
<i>Private Risk Asset Programs</i>		
Private Equity	10.5%	4% - 14%
Private Real Estate	7.5%	4% - 10%
Private Credit	<u>2.0%</u>	<u>0% - 7%</u>
<b>Total Private Risk Assets</b>	<b>20.0%</b>	<b>5% - 25%</b>
<b>Total Fund</b>	<b><u>100.0%</u></b>	

### Rate of Return

For the year ended June 30, 2015, the money-weighted rate of return, net of all investment expenses and fees was 4.5%. The money weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. Time weighted returns (geometric return) for the year ended June 30, 2015 net of all investment expenses and fees, was 4.5%.

### Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of the Systems' investment in a single issue. To mitigate this risk, the Systems' investment policy prohibits investing more than 5% of the total investment portfolio into any single financial institution or issuer, excluding U.S. government securities. At June 30, 2015, the Systems did not have more than 5% of total investments in a single issue except for U.S. government securities.

## Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Systems do not have a single investment policy that restricts duration as a means of managing its exposure to fair value losses arising from increased interest rates; however, each manager must follow guidelines established relative to the duration of its benchmark. The portfolios are continually monitored to ensure compliance with these guidelines. The following table includes collateral pledged for securities lending collateral. The maturities of all debt securities are presented below:

Security Type	Fair Value at June 30, 2015	< 1 year to maturity	1 to 5 years to maturity	6 to 10 years to maturity	Over 10 years to maturity
U.S. treasuries	\$ 8,774,882,988	\$ 3,673,225,663	\$ 3,053,559,813	\$ 1,066,488,852	\$ 981,608,660
Agencies	15,537,537	12,006,037	3,531,500	-	-
Collateralized mortgage obligations	24,094,038	-	-	-	24,094,038
Commercial mortgage backed securities	1,661,267	-	-	-	1,661,267
Asset backed securities	4,311,211	-	1,495,527	904,945	1,910,739
Corporate bonds	2,175,102,031	47,081,879	1,168,202,462	815,256,790	144,560,900
Sovereign	47,839,546	803,972	6,527,700	21,215,276	19,292,598
Repurchase agreements	102,079,990	102,079,990	-	-	-
Commercial Paper	7,588,674	7,588,674	-	-	-
Certificate of Deposit	105,006,529	105,006,529	-	-	-
Time Deposits	11,000,000	11,000,000	-	-	-
Derivatives	58,103	(119,514)	(1,236,098)	283,005	1,130,710
Municipals	13,352,829	-	-	3,370,093	9,982,736
<b>Commingled Funds (see note)</b>					
JPM STIF	743,496,030	743,496,030	-	-	-
BlackRock TempFund	5,000,000	5,000,000	-	-	-
Bridgewater STIF II	35,866,142	35,866,142	-	-	-
Bridgewater US IL Bond Fund	13,238,910	-	-	13,238,910	-
Bridgewater International Bond Fund	16,422,862	-	-	-	16,422,862
PIMCO Developing Markets	161,573,119	161,573,119	-	-	-
PIMCO Short Term Floating NAV II	27,966,039	27,966,039	-	-	-
Currency	27,781,268	27,781,268	-	-	-
Total	\$ 12,313,859,113	\$ 4,960,355,828	\$ 4,232,080,904	\$ 1,920,757,871	\$ 1,200,664,510
Percentage of Total Fixed Income	100%	40%	34%	16%	10%

Note: Commingled Funds are presented at the weighted average maturity. These funds do not have a single maturity date; however, the underlying securities have maturity dates. To more accurately reflect the interest rate risk of the Systems, these weighted averages are displayed.

The following table includes the debt maturities for the Systems' deposits and repurchase agreements collateral.

Security Type	Fair Value at June 30, 2015	< 1 year to maturity	1 to 5 years to maturity	6 to 10 years to maturity	Over 10 years to maturity
PSRS - Agencies	\$ 98,842,069	\$ -	\$ 80,701,428	\$ 1,417,598	\$ 16,723,043
PEERS - Agencies	5,243,755	-	135,457	699,978	4,408,320



## Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The Systems do not have a single investment policy designating the minimum allowable credit rating; however, each manager must follow guidelines established specifically for its managed portfolio. The portfolios are continually monitored to ensure compliance with these guidelines. The following tables include collateral pledged for securities lending collateral. The Systems' debt investments by credit rating category as of June 30, 2015 are presented in the following tables.

Security Type	Fair Value at June 30, 2015	%	AAA	AA	A	BBB	BB	B	CCC	Not Rated
U.S. treasuries	\$ 8,774,882,988	72%	\$ 8,774,882,988	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Agencies	15,537,537	0%	9,999,917	5,537,620	-	-	-	-	-	-
Collateralized mortgage obligations	24,094,038	0%	-	15,714,789	635,155	706,584	74,819	723,663	3,723,387	2,515,641
Commercial mortgage-backed securities	1,661,267	0%	959,519	217,708	105,662	378,378	-	-	-	-
Asset backed securities	4,311,211	0%	150,770	208,241	1,567,689	905,047	-	329,953	1,149,511	-
Corporate bonds	2,175,102,031	19%	45,455,108	146,319,048	778,003,051	758,100,476	191,257,395	229,033,702	6,814,179	20,119,072
Sovereign	47,839,546	0%	4,590,582	1,977,213	5,060,497	22,787,064	7,948,298	697,875	4,778,017	-
Repurchase agreements	102,079,990	1%	102,079,990	-	-	-	-	-	-	-
Commercial paper	7,588,674	0%	7,588,674	-	-	-	-	-	-	-
Certificates of deposit	105,006,529	1%	105,006,529	-	-	-	-	-	-	-
Time Deposits	11,000,000	0%	11,000,000	-	-	-	-	-	-	-
Derivatives	58,103	0%	-	-	-	-	-	-	-	58,103
Municipals	13,352,829	0%	-	792,314	217,752	-	2,712,690	9,630,073	-	-
<b>Commingled Funds (see note)</b>										
JPM STIF	743,496,030	6%	743,496,030	-	-	-	-	-	-	-
BlackRock TempFund	5,000,000	0%	5,000,000	-	-	-	-	-	-	-
Bridgewater STIF II	35,866,142	0%	35,866,142	-	-	-	-	-	-	-
Bridgewater US IL Bond Fund	13,238,910	0%	-	13,238,910	-	-	-	-	-	-
Bridgewater International Bond Fund	16,422,862	0%	16,422,862	-	-	-	-	-	-	-
PIMCO Developing Markets	161,573,119	1%	-	161,573,119	-	-	-	-	-	-
PIMCO Short Term Floating NAV II	27,966,039	0%	-	27,966,039	-	-	-	-	-	-
Currency	27,781,268	0%	-	-	-	-	-	-	-	27,781,268
Total	\$ 12,313,859,113	100%	\$ 9,862,499,111	\$ 373,545,001	\$ 785,589,806	\$ 782,877,549	\$ 201,993,202	\$ 240,415,266	\$ 16,465,094	\$ 50,474,084
<b>Percentage of Total Fixed Income</b>		<b>100%</b>	<b>80%</b>	<b>3%</b>	<b>6%</b>	<b>6%</b>	<b>2%</b>	<b>2%</b>	<b>0%</b>	<b>1%</b>

*Note: Commingled Funds are presented at the weighted average credit quality. These funds do not carry a rating in and of themselves; however, the underlying securities are all rated. To more accurately reflect the credit risk of the Systems, these weighted averages are displayed. Obligations of the U.S. government or obligations explicitly guaranteed by the U.S. government are not required to be disclosed; however, we feel it shows a more true picture of our fixed income holdings.*

All collateral pledged in support of the Systems' deposits and repurchase agreements was held in agency securities with a quality rating of AA.

## Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The Systems do not have a single investment policy designating the allowable exposure to foreign currency; however, each manager must follow guidelines established specifically for its managed portfolio. The portfolios are continually monitored to ensure compliance with these guidelines. The Systems' exposure to foreign currency risk as of June 30, 2015 is presented in the following table.

Currency	Debt	Equity	Currency/Short Term	Total
Australian Dollar	\$ 4,105,332	\$ 124,904,743	\$ (64,759)	\$ 128,945,316
Brazilian Real	1,185,071	69,813,495	541,680	71,540,246
British Pound Sterling	23,970,492	422,316,056	(989,251)	445,297,297
Canadian Dollar	-	177,349,806	399,551	177,749,357
Chilean Peso	-	2,338,695	(50,537)	2,288,158
Czech Koruna	-	1,287,582	1,527	1,289,109
Danish Krone	-	36,729,019	367,338	37,096,357
Egyptian Pound	-	100,907	24,024	124,931
Euro Currency	113,583,209	914,117,079	9,516,962	1,037,217,250
Hong Kong Dollar	-	211,314,351	397,817	211,712,168
Hungarian Forint	-	1,650,437	(13,434)	1,637,003
Indian Rupee	-	51,898,278	243,880	52,142,158
Indonesian Rupiah	-	12,717,149	251,497	12,968,646
Israeli Shekel	-	6,653,884	74,095	6,727,979
Japanese Yen	-	448,346,162	2,137,668	450,483,830
Malaysian Ringgit	-	21,353,456	426,054	21,779,510
Mexican Peso	4,425,928	18,124,887	492,799	23,043,614
New Taiwan Dollar	-	49,768,549	210,299	49,978,848
New Turkish Lira	-	10,486,794	(16,685)	10,470,109
New Zealand Dollar	-	18,783,296	(24,556)	18,758,740
Norwegian Krone	-	908,977	59,871	968,848
Peruvian Nuevo Sol	-	-	(181)	(181)
Philippine Peso	-	10,533,535	16,692	10,550,227
Polish Zloty	-	13,618,611	134,431	13,753,042
Qatari Rial	-	5,518,699	-	5,518,699
Russian Ruble	-	102	-	102
Singapore Dollar	-	53,405,058	189,553	53,594,611
South African Rand	-	47,136,969	486,732	47,623,701
South Korean Won	-	63,289,053	233,834	63,522,887
Swedish Krona	-	66,901,846	316,468	67,218,314
Swiss Franc	745,939	172,167,425	144,110	173,057,474
Thailand Baht	-	5,823,780	165,334	5,989,114
UAE Dirham	-	390,072	21,671	411,743
Yuan Renminbi	-	1,290,208	1,146	1,291,354
<b>Total</b>	<b>\$ 148,015,971</b>	<b>\$ 3,041,038,960</b>	<b>\$ 15,695,630</b>	<b>\$ 3,204,750,561</b>

## Derivatives

Derivatives are generally defined as investment instruments whose cash flows or fair values are derived from the value of some other asset or index. The Systems are parties to derivatives which have off-balance sheet risk. These derivative instruments are used in the normal course of business to generate earnings and reduce exposure to fluctuations in market conditions. The Systems are exposed to various types of credit, market and legal risk related to these investments. Investment staff monitors these types of investments with extreme care and is not aware of any undue risks at this time. All derivatives are considered investments. Derivatives are reported at fair value on the Statements of Fiduciary Net Position based on quoted market prices when available. In the instances that quoted market prices are unavailable, pricing is obtained via independent pricing sources.

The fair value balances and notional amounts of derivative instruments outstanding as of June 30, 2015, classified by type are as follows:

	Fair Value at June 30, 2015		
Investment Derivatives	Classification	Amount	Notional
Swaps			
Receive-fixed interest rate swap	Investments, at fair value	\$ 77,283	\$ 459,893,634
Credit default swaps	Investments, at fair value	(320,003)	97,694,940
Total return swaps - equity	Investments, at fair value	(51,697,954)	3,659,175,700
Total swaps		(51,940,674)	4,216,764,274
Futures			
Equity futures long	Investments, at fair value	-	124,901,927
Equity futures short	Investments, at fair value	-	69,088,934
Treasury futures long	Investments, at fair value	-	1,597,219
Treasury futures short	Investments, at fair value	-	5,333,061
Currency futures short	Investments, at fair value	-	81,306,800
Commodity futures long	Investments, at fair value	-	23,914,400
Total futures		-	306,142,341
Options			
Fixed income written call options	Investments, at fair value	(143,756)	35,278,988
Fixed income written put options	Investments, at fair value	(102,995)	40,682,622
Swaptions	Investments, at fair value	(192,745)	57,400,000
Total options		(439,496)	133,361,610
Foreign currency forwards net receivable/payable			
	Investment Sales and Purchases	(1,755,192)	-
Total Investment Derivatives		\$ (54,135,362)	\$ 4,656,268,225

**Swaps** - The Systems' investment managers have entered into various swaps including interest rate swaps, credit default swaps and equity and total return swaps. Swaps represent an agreement between two parties to exchange sequences of cash flows over a period in the future. In the most common type of interest rate swap arrangement, one party agrees to pay fixed interest payments on designated dates to a counterparty who, in turn, agrees to make return interest payments that float with some reference rate. A credit default swap is a contract whereby the credit risk associated with an investment is transferred by entering into an agreement with another party, who in exchange for periodic fees, agrees to make payments in the event of a default or other predetermined credit event. A total return swap is a contract in which one party makes payments based on a set rate, either fixed or variable, while the other party makes payments based on the return of the underlying asset. The underlying asset is typically an index, bond,



etc. Gains and losses on swaps are determined based on market values and are recorded in net appreciation (depreciation) in fair value of investments on the Systems' Statements of Changes in Fiduciary Net Assets. Net gains on swaps of \$110.5 million were recognized for the fiscal year ended June 30, 2015.

**Futures** - Futures represent commitments to purchase (asset) or sell (liability) securities at a future date and at a specified price. Futures contracts are traded on organized exchanges (exchange traded) thereby minimizing the Systems' credit risk. The net change in the value of futures contracts is settled daily in cash with the exchanges. Net gains or losses resulting from the daily settlements are included in net appreciation (depreciation) in fair value of investments on the Systems' Statements of Changes in Fiduciary Net Assets. The Systems recognized net losses on futures contracts of \$0.8 million during the fiscal year ended June 30, 2015.

**Options** - Options represent or give buyers the right, but not the obligation, to buy (call) or sell (put) an asset at a preset price over a specified period. The option's price is usually a small percentage of the underlying asset's value. As a writer of financial options, the Systems' investment managers receive a premium at the outset of the agreement and bear the risk of an unfavorable change in the price of the financial instrument underlying the option. As a purchaser of financial options, the Systems' investment managers pay a premium at the outset of the agreement and the counterparty bears the risk of

an unfavorable change in the price of the financial instrument underlying the option. Net gains or losses resulting from such obligations are included in net appreciation (depreciation) in fair value of investments on the Systems' Statements of Changes in Fiduciary Net Position. The Systems recognized net gains on option contracts of \$0.4 million during the fiscal year ended June 30, 2015.

**Currency forwards** - Currency forwards represent forward foreign exchange contracts that are entered into in order to hedge the exposure to changes in foreign currency rate on the foreign currency dominated portfolio holdings. A forward foreign exchange contract is a commitment to purchase or sell a foreign currency at a future date at a negotiated forward rate. The gain or loss arising from the difference between the original contracts and the closing of such contracts is included in net appreciation (depreciation) in fair value of investments on the Systems' Statements of Changes in Fiduciary Net Position. The Systems recognized net gains on such contracts of \$36.3 million during the fiscal year ended June 30, 2015.

**Derivative Risk** - Derivatives that are exchange traded are not subject to credit risk. No derivatives held are subject to custodial credit risk.

At June 30, 2015 the counterparties' credit ratings for currency forwards, options and swaps are subject to credit risk as shown below:

Derivative Counterparty Credit Ratings				
Quality Rating	Swaps	Options	Forwards	Total
AA	\$ (1,843)	\$ -	\$ 262,885	\$ 261,042
A	(52,208,867)	(439,496)	(2,018,077)	(54,666,440)
<b>Total subject to credit risk</b>	<b>\$ (52,210,710)</b>	<b>\$ (439,496)</b>	<b>\$ (1,755,192)</b>	<b>\$ (54,405,398)</b>

The Systems are exposed to interest rate risk on their interest rate swaps. As the variable portion of the swaps move in the market, the Systems' exposure increases and decreases. The Systems are exposed to termination risk. The Systems' investment managers or their counterparties may terminate a derivative if the either party fails to perform under the terms of the contract.

The Systems' derivatives are governed by ISDA Master Agreements between the Systems and the Counterparties. These agreements set forth collateral requirements and applicable netting arrangements. Foreign currency risks are reflected on page 18.

The Systems could be exposed to risk if the counterparties to the contracts are unable to meet the terms of the contracts. The Systems' investment managers seek to control this risk through counterparty credit evaluations and approvals, counterparty credit limits, and exposure monitoring procedures. The Systems anticipate that the counterparties will be able to satisfy their obligations under the contracts.

The derivative financial instruments discussed involve, to varying degrees, elements of market risk to the extent of future market movements in excess of the amounts recognized in the Statements of Fiduciary Net Position. Market risk arises from the potential unfavorable change in the value of the underlying instruments. The contract or notional amounts of these instruments reflect the extent of the Systems' involvement in each class of financial instrument; however, these amounts do not represent the exposure to market loss. Additional derivatives may be held in limited partnerships and commingled funds that are not reflected above.

***Security Lending Activity*** – Under the “prudent person” authority of the governing statutes and in accordance with the policies set by the Board of Trustees, the Systems lend securities to broker-dealers and banks pursuant to a form of loan agreement. The Systems' custodial bank is authorized to act as the Systems' agent to lend available securities to approved broker-dealers and banks subject to the receipt of acceptable collateral.

During the fiscal year, the Systems' custodial bank lent, on behalf of the Systems, securities to participating broker-dealers. The broker-dealers must provide collateral in the form of cash. The Systems did not impose restrictions during the fiscal year on the amount

of loans that the custodial bank made on their behalf. Borrowers were required to deliver collateral for each loan equal to: (1) in the case of loaned securities denominated in U.S. dollars or whose primary trading market was located in the United States, or sovereign debt issued by foreign governments, 102% of the fair value of the loaned securities and (2) in the case of loaned securities not denominated in U.S. dollars or whose primary trading market was not located in the United States, 105% of the fair value of the loaned securities.

Pursuant to the lending agreement, the custodial bank has an obligation to provide a form of indemnification to the Systems in the event of default by a borrower. There were no violations of the contractual provisions nor were there any borrower or lending agent default losses during the fiscal year.

The market value of securities on loan as of June 30, 2015 was \$403,643,058. On June 30, 2015 the Systems had no credit risk exposure to borrowers as the cash and securities collateral amounts received exceeded amounts on loan. Loans are generally terminable on demand. However, with the prior approval of the Systems, loans may be made on the basis of a specified termination date, with or without providing for the right of the Systems to terminate or substitute equivalent securities. As of June 30, 2015, there were no term loans.

Cash collateral is invested in separately managed accounts in accordance with the investment guidelines approved by the Systems. The primary investment objective is the preservation of principal. As of June 30, 2015, the cost basis of the invested cash collateral totaled \$415,680,317 and the estimated market value totaled \$415,683,769.

PSRS recognized net depreciation of \$4,273 for the year ended June 30, 2015 on the invested collateral account. Such is reported as net appreciation (depreciation) in fair value of security lending collateral on the Statements of Changes in Fiduciary Net Position.

The weighted average duration of invested collateral as of June 30, 2015 was 14 days and an average final maturity of approximately 24 days. Because the loans were terminable at will, their duration did not match the duration of the investments made with cash collateral.

## Note 5 – Net Pension Liability of Employers

The components of the net pension liability of the Systems' employers at June 30, 2015 are as follows:

	Total Pension Liability (TPL) (a)	Fiduciary Plan Net Position-Restricted for Pensions (b)	Net Pension Liability (NPL) (a - b)	Fiduciary Plan Net Position as a % of TPL (b/a)	Covered Employee Payroll (c)	Employers' NPL as a % of Covered Payroll ((b-a)/c)
PSRS	\$ 40,610,539,616	\$ 34,837,679,505	\$ 5,772,860,111	85.8%	\$ 4,508,241,581	128.1%
PEERS	\$ 4,512,316,979	\$ 3,983,410,821	\$ 528,906,158	88.3%	\$ 1,469,771,528	36.0%

**Actuarial Assumptions** - Actuarial valuations of the Systems involve estimates of the reported amount and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The last experience study was conducted in 2011 and the next experience study is scheduled for 2016.

The Schedules of Employer's Net Pension Liability presents multi-year trend information about whether the plan net positions are increasing or decreasing over time relative to the total pension liability. These schedules are presented in the required supplementary information following the notes to the financial statements. The total pension liability was determined by an actuarial valuation as of June 30, 2015. A summary of the actuarial assumptions as of June 30, 2015 are shown below.

<b>Measurement Date</b>	June 30, 2015
<b>Valuation Date</b>	June 30, 2015
<b>Actuarial Cost Method</b>	Entry Age Normal
<b>Investment Rate of Return</b>	8.00%
<b>Inflation</b>	2.50%
<b>Total Payroll Growth</b>	
PSRS	3.50% per annum, consisting of 2.50% inflation, 0.50% additional inflation due to the inclusion of health care costs in pension earnings, and 0.50% of real wage growth.
PEERS	3.75% per annum, consisting of 2.50% inflation, 0.75% additional inflation due to the inclusion of health care costs in pension earnings, and 0.50% of real wage growth.
<b>Future Salary Increases</b>	
PSRS	4.00% - 10.00%, depending on service and including 2.50% inflation, 0.50% additional inflation due to the inclusion of health care costs in pension earnings, and real wage growth of 1.00% to 7.00%.
PEERS	5.00% - 12.00%, depending on service and including 2.50% inflation, 0.75% additional inflation due to the inclusion of health care costs in pension earnings, and real wage growth of 1.75% to 8.75%.
<b>Cost-of-Living Increases</b>	
PSRS	2.0% compounded annually, beginning on the second January after retirement and capped at 80% lifetime increase.
PEERS	2.0% compounded annually, beginning on the fourth January after retirement and capped at 80% lifetime increase.
<b>Mortality Assumption</b>	
<i>Actives:</i>	
PSRS	RP 2000 Mortality Table set back one year for males and six years for females, then projected to 2016 using Scale AA.
PEERS	RP 2000 Mortality Table set back one year for males and six years for females, then projected to 2016 using Scale AA.
<i>Non-Disabled Retirees, Beneficiaries and Survivors:</i>	
PSRS	RP 2000 Mortality Table set back one year for both males and females, then projected to 2016 using Scale AA.
PEERS	RP 2000 Mortality Table set forward one year for males and no set back/forward for females, then projected to 2016 using Scale AA.
<i>Disabled Retirees:</i>	RP 2000 Disabled Mortality Table



The sensitivity of the net pension liability of employers to changes in the discount rate is presented below. The net pension liability of employers calculated using the discount rate of 8.0% is presented as well as what the employers' net pension liability would be using a discount rate that is 1.0% lower (7.0%) or 1.0% higher (9.0%) than the current rate.

		1% Decrease (7.0%)	Current Rate (8.0%)	1% Increase (9.0%)
<b>PSRS</b>	Net Pension Liability (Asset)	\$ 10,617,339,855	\$ 5,772,860,111	\$ 1,704,037,041
<b>PEERS</b>	Net Pension Liability (Asset)	\$ 1,067,774,408	\$ 528,906,158	\$ 73,339,657

The long-term expected rate of return on the Systems' investments was determined using a building-block method in which best-estimate ranges of expected future real rates of returns (expected returns, net of investment expense and inflation) were developed for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the Systems' target allocation as of June 30, 2015 are summarized below along with the long term geometric return. Geometric return (also referred to as the time weighted return) is considered standard practice within the investment management industry. Geometric returns represent the compounded rate of growth of a portfolio. The method eliminates the effects created by cashflows.

Asset Class	Target Asset Allocation	Long-term Expected Real Return Arithmetic Basis	Weighted Long-term Expected Real Return Arithmetic Basis
U.S. Public Equity	27.0 %	5.85 %	1.58 %
Public Credit	12.0 %	2.44 %	0.29 %
Hedged Assets	6.0 %	5.22 %	0.31 %
Non-U.S. Public Equity	15.0 %	6.64 %	1.00 %
U.S. Treasuries	16.0 %	1.01 %	0.16 %
U.S. TIPS	4.0 %	1.12 %	0.04 %
Private Credit	2.0 %	7.61 %	0.15 %
Private Equity	10.5 %	8.61 %	0.90 %
Private Real Estate	7.5 %	4.60 %	0.35 %
Total	100.0 %		4.78 %
		Inflation	2.50 %
		Long term arithmetical nominal return	7.28 %
		effect of covariance matrix	0.81 %
		Long term expected geometric return	8.09 %

The discount rate used to measure the total pension liability was 8.0% as of June 30, 2015, and is consistent with the long-term expected geometric return on plan investments. The projection of cash flows used to determine the discount rate assumed that employer contributions would be made at the actuarially calculated rate computed in accordance with assumptions and methods stated in the funding policy adopted by the Board of Trustees, which requires payment of the normal cost and amortization of the unfunded actuarially accrued liability in level percent of employee payroll installments over 30 years utilizing a closed period, layered approach. Based on this assumption, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members.

## Note 6 – Retirement Plans

### Section 401(a) Defined Benefit Plan

All full-time System employees holding valid Missouri educator certificates are covered by PSRS. All other eligible employees are members of PEERS. Both Systems provide retirement and disability benefits, annual cost-of-living adjustments and death benefits to plan members and beneficiaries. Chapter 169 RSMo contains the statutory provisions of both Systems.

PSRS members were required to contribute 14.5% of their annual covered salary during fiscal years 2015, 2014 and 2013. PSRS, as the employer, was required to match that amount. The contribution rate is set each year by the Board of Trustees upon the recommendation of the independent actuary within the contribution restrictions set in Section 169.030 RSMo. Employer contributions to PSRS totaled \$24,712 for the 2015 fiscal year, \$24,975 for the 2014 fiscal year and \$30,474 for the 2013 fiscal year. The amounts for these years are equal to the required contributions.

PEERS members were required to contribute 6.86% of their annual covered salary during fiscal years 2015, 2014 and 2013. PSRS, as the employer, was required to match that amount. The contribution rate is set each year by the Board of Trustees upon the recommendation of the independent actuary within the contribution restrictions in Section 169.620 RSMo. Employer contributions to PEERS totaled \$669,966 for the 2015 fiscal year, \$625,876 for the 2014 fiscal year and \$595,935 for the 2013 fiscal year. The amounts for these years are equal to the required contributions.

PSRS and PEERS, as the administrators for the defined pension plans, are also participating employers of the Systems. The administrative expenses of the Systems are included in the deductions to the Systems' fiduciary net position. While the employer contributions of the other participating employers are funded from outside revenue sources, the employer contributions of PSRS and PEERS are funded from sources already recognized as revenues, such as earnings on plan investments or contributions paid by the other participating employers. Attempting to allocate a portion of the net pension liability to PSRS and PEERS would result in an allocation of the net pension liability to the other participating employers.

Accordingly, PSRS and PEERS will exclude its contributions from the employer proportionate share

calculation for the reporting of a net pension liability, by assigning itself a proportionate share of 0%. This exclusion in essence shifts the portion of the net pension liability that would accrue to PSRS and PEERS to the other participating employers.

### Section 457 Deferred Compensation Plan

A voluntary Section 457 deferred compensation plan is administered to provide additional retirement benefits for employees. The plan provides for employer-matching contributions up to a set maximum. The total contributions are subject to the limitations established in IRC Section 457. The Board of Trustees has authority to establish the employer contribution levels. For most employees, the System will match \$50 plus 0.52% of salary per month. For certain employees, the System will make employer-paid contributions of \$18,000 per year plus \$6,000 in catch up contributions, if eligible. This is governed by individual employment contracts as approved by the Board of Trustees.

All employees immediately vest in the employer-matching and employer-paid contributions. Employer-matching contributions totaled \$107,756 and employer-paid contributions totaled \$64,250 for the 2015 fiscal year. Employee contributions totaled \$313,395 for the 2015 fiscal year.

Maintenance of individual member accounts and custody of assets have been contracted to a third-party administrator and investment custodian. Total contributions are sent directly to the third-party administrator by the employer. Employees can self-direct investments of their contributions and their respective share of matching contributions in a number of investment options. Because the System does not hold the plan's assets and does not have significant administrative responsibilities, the plan's assets and changes in net assets are not reported in the Systems' financial statements..

## Note 7 – Other Post-Employment Benefit Plans

### Post-Employment Staff Retiree Healthcare Plan

*Plan Description and Funding Policy* – The Public School Retirement System of Missouri Staff Retiree Healthcare Program (SRHP) is a single-employer defined benefit other post-employment benefit (OPEB) plan

administered by PSRS. SRHP provides a healthcare premium implicit rate subsidy to eligible staff retirees and their dependents provided they pay 100% of the blended healthcare premium. The blended healthcare premium is based on all active and retired employees. Retiree healthcare benefits are funded on a pay-as-you-go basis, with premiums determined annually. The PSRS/PEERS Board of Trustees determines the funding of benefits and any benefit amendments. There is no continuing obligation to provide benefits beyond each calendar year. SRHP does not issue a stand-alone public financial report.

*Annual OPEB Cost and Net OPEB Obligation* – PSRS' annual OPEB cost (expense) is calculated based on the annual required contribution (ARC) of the employer, an amount actuarially determined in accordance with the parameters of Governmental Accounting Standards Board (GASB) Statement 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years.

PSRS' annual OPEB cost, the amount actually contributed to the plan and changes in the net OPEB obligation are as follows:

Annual required contribution	\$ 314,000
Interest on net OPEB obligation	47,900
Amortization of net OPEB obligation	(47,100)
Annual OPEB cost	314,800
Contributions made	69,600
Increase in net OPEB obligation	245,200
Net OPEB obligation - beginning of year	1,452,400
Net OPEB obligation - end of year	\$ 1,697,600

PSRS' annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for fiscal year 2014 and the two preceding years are as follows:

Fiscal Year Ended	Annual OPEB Cost (AOC)	% of AOC Contributed	Net OPEB Obligation
6/30/2013	\$ 305,800	18.2 %	\$ 1,199,300
6/30/2014	\$ 316,900	20.1 %	\$ 1,452,400
6/30/2015	\$ 314,800	22.1 %	\$ 1,697,600

Funded Status and Funding Progress - SRHP's funded status and funding progress are summarized below:

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Payroll ((b-a)/c)
6/30/15	\$ -	\$3,422,000	\$ 3,422,000	0.0%	\$9,046,100	37.8%

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality and healthcare cost trends. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, presents trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

*Actuarial Method and Assumptions*- Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and the plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the efforts of short-term volatility in actuarially accrued liabilities and the actuarial value of assets, consistent with the long-term perspectives of the calculations.

In the June 30, 2015 actuarial valuation, the following assumptions and method were used:

Actuarial Cost Method	Entry Age Normal
Actuarial Value of Assets	No Assets (pay-as-you-go)
Amortization Method	Level Percent Open
Remaining Amortization Period	30 Years
Actuarial Assumptions:	
Investment Rate of Return	3.3 % per year
Wage Inflation	3.5 % per year
Healthcare Trend	7.5% in fiscal year 2015, decreasing by one-half percentage point per year to an ultimate of 4.5% in fiscal year 2021 and after



## Post-Employment Health Plan

PSRS maintains a Post-Employment Health Plan ("PEHP") for employees. Upon termination, an employee will receive payment at the rate of one day of pay for each two days of accrued sick leave up to 100 days of accrued sick leave (50 days paid). Any days above 100 will be forfeited. All payments under the PEHP in excess of \$1,000 will be transferred into a PEHP account which can be used to pay health insurance premiums for the employee or dependent at any time in the future. If an employee is retiring, the payments can be transferred back to PSRS on a monthly basis to cover the cost of health insurance for the retiree. The amount paid into the PEHP was \$2,178 for one employee during 2015. The cost was charged 62% to PSRS and 38% to PEERS.

## Note 8 – Risk Management

The Systems are exposed to various risks of loss related to natural disasters, errors and omissions, loss of assets, torts, etc. The Systems have chosen to cover such losses through the purchase of commercial insurance. There have been no material insurance claims filed or paid during the past three years.

The Systems have a disaster recovery plan that provides for continued computer operations at a remote location should the retirement office be unavailable for normal operations.

## Note 9 – Commitments and Contingencies

Commitments to the future purchase of investments at June 30, 2015 totaled \$2,129,529,626.

Total unfunded capital commitments to private real estate, private equity and other alternative investments totaled approximately \$3.9 billion as of June 30, 2015. The unfunded commitments are not recorded in the Statements of Fiduciary Net Assets.

As discussed in Note 4 – *Deposits, Investments and Securities Lending Program*, the System's custodial bank is authorized to act as the Systems' agent regarding security lending transactions. The required collateral is then invested in collective investment pools, which are governed by Trust agreements. The Systems and their previous custodial bank are in dispute regarding the terms of the Trust agreement for the Quality D Short-Term Investment Fund (Quality D Fund). The previous

custodial bank believes the Trust Agreement provides them the ability to re-value the Systems' investments in the Quality D Fund based on a series of prior, System authorized, Custodial bank approved, redemptions. The Systems strongly contest such action. On October 14, 2009, the custodial bank revalued the Systems' investments in the Quality D Fund by reducing the value by approximately \$96 million. The Systems were then provided their revalued portion of the Quality D Fund as an in-kind distribution. The in-kind distribution was utilized to fund a customized collective investment pool to facilitate securities lending activity. The revaluation was based on net asset values as of October 13, 2009. The Systems strongly oppose such action and anticipate recovery of such amounts. The Systems filed a lawsuit in Cole County, Missouri Circuit Court against the custodial bank on September 18, 2009 in an attempt to prevent the custodial bank from taking such action. The Systems are proceeding with litigation to recover any amounts lost as a result of the custodial bank's action. The Systems terminated their custodial relationship with the previous custodian on October 1, 2010.

Certain other legal proceedings are pending with PSRS and PEERS arising from normal activities. Although unable to predict the outcome of these matters, the Systems believe the final outcome of these actions will not have a material adverse effect on the Systems' financial statements.

Public School Retirement System of Missouri and  
Public Education Employee Retirement System of Missouri  
Required Supplementary Information  
Schedules of Changes in the Employers' Net Pension Liability

	Year Ended:	PSRS		PEERS	
		June 30, 2015	June 30, 2014	June 30, 2015	June 30, 2014
<b>Total pension liability</b>					
Service cost		\$ 836,085,151	\$ 849,712,130	\$ 156,599,641	\$ 159,672,364
Interest cost		3,019,050,250	2,885,182,982	333,780,285	315,131,402
Difference between actual and expected experience		598,417,056	226,591,816	45,518,402	(14,308,876)
Assumption changes		-	-	-	-
Plan amendments/benefit changes		-	-	-	-
Benefit payments		(2,326,196,773)	(2,236,468,407)	(235,070,181)	(216,624,810)
<b>Net change in total pension liability</b>		<u>2,127,355,684</u>	<u>1,725,018,521</u>	<u>300,828,147</u>	<u>243,870,080</u>
<b>Total pension liability - beginning of year</b>		<u>38,483,183,932</u>	<u>36,758,165,411</u>	<u>4,211,488,832</u>	<u>3,967,618,752</u>
<b>Total pension liability - end of year (a)</b>		<u>\$40,610,539,616</u>	<u>\$38,483,183,932</u>	<u>\$ 4,512,316,979</u>	<u>\$ 4,211,488,832</u>
<b>Plan Fiduciary Net Position</b>					
Employer contributions		\$ 656,924,899	\$ 643,989,869	\$ 103,624,310	\$ 100,699,735
Member contributions		689,187,215	679,390,918	110,443,660	106,420,656
Net investment return		1,447,169,205	4,927,198,588	163,719,526	544,154,941
Benefit payments, including refunds of member contributions		2,326,196,773	(2,236,468,407)	(235,070,010)	(216,624,810)
Administrative and other expenses		(10,013,601)	(8,919,201)	(5,629,551)	(4,840,432)
<b>Net change in plan fiduciary net position</b>		<u>457,070,945</u>	<u>4,005,191,767</u>	<u>137,087,935</u>	<u>529,810,090</u>
<b>Plan fiduciary net position - beginning of year</b>		<u>34,380,608,560</u>	<u>30,375,416,793</u>	<u>3,846,322,886</u>	<u>3,316,512,796</u>
<b>Plan fiduciary net position - end of year (b)</b>		<u>\$ 34,837,679,505</u>	<u>\$34,380,608,560</u>	<u>\$ 3,983,410,821</u>	<u>\$ 3,846,322,886</u>
<b>Net pension liability - end of year (a-b)</b>		<u>\$ 5,772,860,111</u>	<u>\$ 4,102,575,372</u>	<u>\$ 528,906,158</u>	<u>\$ 365,165,946</u>

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available.

Public School Retirement System of Missouri and  
Public Education Employee Retirement System of Missouri  
Required Supplementary Information  
Schedules of Employers' Net Pension Liability

**Public School Retirement System of Missouri**

Year Ended	Total Pension Liability (TPL) (a)	Plan Fiduciary Net Position- Restricted for Pensions (b)	Net Pension Liability (NPL) (a - b)	Plan Fiduciary Net Position as a % of TPL (b/a)	Covered Employee Payroll (c)	Employers' NPL as a % of Covered Payroll ((b-a)/c)
6/30/14	\$ 38,483,183,932	\$ 34,380,608,560	\$ 4,102,575,372	89.3%	\$ 4,425,567,630	92.7%
6/30/15	40,610,539,616	34,837,679,505	5,772,860,111	85.8%	4,508,241,581	128.1%

**Public Education Employee Retirement System of Missouri**

Year Ended	Total Pension Liability (TPL) (a)	Plan Fiduciary Net Position- Restricted for Pensions (b)	Net Pension Liability (NPL) (a - b)	Plan Fiduciary Net Position as a % of TPL (b/a)	Covered Employee Payroll (c)	Employers' NPL as a % of Covered Payroll ((b-a)/c)
6/30/14	\$ 4,211,488,832	\$ 3,846,322,886	\$ 365,165,946	91.3%	\$ 1,442,700,979	25.3%
6/30/15	\$ 4,512,316,979	\$ 3,983,410,821	\$ 528,906,158	88.3%	\$ 1,469,771,528	36.0%

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available.

Public School Retirement System of Missouri and  
Public Education Employee Retirement System of Missouri

Required Supplementary Information

Schedules of Employer Contributions

**Public School Retirement System of Missouri**

Year Ended June 30	Actuarially Determined Contribution	Actual Employer Contributions	Contribution Excess/ (Deficiency) <sup>1</sup>	Actual Covered Member Payroll	Contributions as a Percentage of Covered Payroll
2006	\$ 608,134,319	\$ 429,578,911	\$(178,555,408)	\$ 3,735,468,791	11.50%
2007	644,969,214	472,216,630	(172,752,584)	3,935,138,583	12.00%
2008	656,347,298	521,241,501	(135,105,797)	4,169,932,008	12.50%
2009	669,643,988	563,454,487	(106,189,501)	4,334,265,285	13.00%
2010	658,161,150	594,326,122	(63,835,028)	4,402,415,719	13.50%
2011	684,366,766	594,732,137	(89,634,629)	4,248,086,693	14.00%
2012	720,303,976	620,214,231	(100,089,745)	4,277,339,524	14.50%
2013	507,232,268	634,040,335	126,808,067	4,372,691,966	14.50%
2014	608,459,393	643,989,869	35,530,476	4,441,309,441	14.50%
2015	666,438,984	656,924,899	(9,514,085)	4,530,516,545	14.50%

**Public Education Employee Retirement System of Missouri**

Year Ended June 30	Actuarially Determined Contribution	Actual Employer Contributions	Contribution Excess/ (Deficiency) <sup>1</sup>	Actual Covered Member Payroll	Contributions as a Percentage of Covered Payroll
2006	\$ 79,707,834	\$ 61,745,505	\$(17,962,329)	\$ 1,122,645,545	5.50%
2007	89,945,503	69,235,160	(20,710,343)	1,204,089,739	5.75%
2008	90,727,016	77,988,839	(12,738,177)	1,299,813,983	6.00%
2009	96,775,289	85,915,562	(10,859,727)	1,374,648,992	6.25%
2010	95,560,084	91,478,725	(4,081,359)	1,407,365,000	6.50%
2011	90,816,155	90,816,155	-	1,369,776,094	6.63%
2012	95,094,785	95,094,785	-	1,386,221,356	6.86%
2013	87,013,816	97,059,313	10,045,497	1,414,858,790	6.86%
2014	98,497,846	100,699,735	2,201,889	1,467,926,166	6.86%
2015	105,739,092	103,624,310	(2,114,782)	1,510,558,455	6.86%

<sup>1</sup>The annual statutory increase in the total contribution rate may not exceed 1% of pay for PSRS and 0.5% of pay for PEERS. The limitation on contribution increases resulted in a deficiency for some of the years presented. Contributions were funded to the maximum statutory limit each year.

Public School Retirement System of Missouri and  
Public Education Employee Retirement System of Missouri

Required Supplementary Information

Schedules of Investment Returns

Year ended:	<b>2015</b>	<b>2014</b>
Annual money-weighted rate of return, net of all investment expenses	4.3%	16.7%
Time-weighted rate of return, net of all investment expenses	4.3%	16.7%

Note: This schedule is intended to show information for ten years. Additional years will be displayed as they become available.



Public School Retirement System of Missouri and  
Public Education Employee Retirement System of Missouri

Notes to the Schedules of Required Supplementary Information

The information presented in the required supplementary schedule was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows:

***Changes in benefit terms:***

PSRS:	The 25-and-Out and 2.55% provisions were extended in 2007 through 2013. In 2013 the state legislature provided a permanent extension of the 25-and-Out provision and extended the 2.55% provision to 2014.
PEERS:	The 25-and-Out was extended in 2007 through 2013. In 2013 the state legislature provided a permanent extension of the 25-and-Out provision.

***Changes of assumptions:***

In 2006 and 2011, payroll growth, salary increases, assumed life expectancies and mortality were adjusted to more closely reflect actual experienced. In 2011, the inflation rate was adjusted to 2.5% from 3.25% and annual cost-of-living adjustments were calculated in accordance with the newly adopted funding policy.

***Actuarially Methods and Assumptions:***

The actuarially determined contribution rates in the schedule of employers' contributions are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported. The following actuarial methods and assumptions were used to determine contribution rates reported in the schedule.

**Actuarial Cost Method**

Entry Age Normal Level Percent of Payroll

**Amortization Method**

Closed, level percent for 30 years

**Remaining amortization period**

PSRS	22.1 years
PEERS	23.2 years

**Asset valuation method**

5-year smoothing of actual returns above or below expected returns

**Inflation**

2.50%

**Total Payroll Growth**

PSRS	3.50% per annum, consisting of 2.50% inflation, 0.50% additional inflation due to the inclusion of health care costs in pension earnings, and 0.50% of real wage growth.
PEERS	3.75% per annum, consisting of 2.50% inflation, 0.75% additional inflation due to the inclusion of health care costs in pension earnings, and 0.50% of real wage growth.

**Future Salary Increases**

PSRS	4.00% - 10.00%, depending on service and including 2.50% inflation, 0.50% additional inflation due to the inclusion of health care costs in pension earnings, and real wage growth of 1.00% to 7.00%.
PEERS	5.00% - 12.00%, depending on service and including 2.50% inflation, 0.75% additional inflation due to the inclusion of health care costs in pension earnings, and real wage growth of 1.75% to 8.75%.

**Cost-of-Living Increases**

PSRS	2.0% compounded annually, beginning on the second January after retirement and capped at 80% lifetime increase.
PEERS	2.0% compounded annually, beginning on the fourth January after retirement and capped at 80% lifetime increase.

**Mortality Assumption**

*Actives:*

PSRS	RP 2000 Mortality Table set back one year for males and six years for females, then projected to 2016 using Scale AA.
PEERS	RP 2000 Mortality Table set back one year for males and six years for females, then projected to 2016 using Scale AA.

*Non-Disabled Retirees, Beneficiaries and Survivors:*

PSRS	RP 2000 Mortality Table set back one year for both males and females, then projected to 2016 using Scale AA.
PEERS	RP 2000 Mortality Table set forward one year for males and no set back/forward for females, then projected to 2016 using Scale AA.

*Disabled Retirees:*

RP 2000 Disabled Mortality Table

**Investment Rate of Return**

8.0% net of investment and administrative expenses

Public School Retirement System of Missouri and  
Public Education Employee Retirement System of Missouri  
Required Supplementary Information  
Staff Retiree Health Plan – Defined Benefit OPEB Plan

**Schedule of Funding Progress**

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL)– (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Payroll ((b-a)/c)
6/30/2013	\$ -	\$ 3,192,700	\$ 3,192,700	0.0%	\$ 8,425,400	37.9%
6/30/2014	\$ -	\$ 3,340,100	\$ 3,340,100	0.0%	\$ 8,803,200	37.9%
6/30/2015	\$ -	\$ 3,422,000	\$ 3,422,000	0.0%	\$ 9,046,100	37.8%

**Schedule of Employer Contributions**

Year Ended	Annual Required Contribution (ARC)	Employer Contributions	Percentage Contributed
6/30/2013	\$ 305,300	\$ 55,700	18.2%
6/30/2014	\$ 316,200	\$ 63,800	20.2%
6/30/2015	\$ 314,000	\$ 69,600	22.2%

**Notes to the Schedules of Required Supplementary Information**

The information presented in the required supplementary schedule was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows:

Actuarial cost method	Entry Age Normal
Actuarial value of assets	No Assets (pay-as-you-go)
Amortization method	Level Percent Open
Remaining amortization period	30 Years
Actuarial assumptions:	
Investment rate of return	3.3% per year
Wage inflation	3.5% per year
Healthcare trend	7.5% in fiscal year 2015, decreasing by one-half percentage point per year to an ultimate of 4.5% in fiscal year 2021 and after

Public School Retirement System of Missouri and  
Public Education Employee Retirement System of Missouri

Schedules of Administrative Expenses  
for the year ended June 30, 2015

	PSRS	PEERS	Combined Totals
<b>Personnel services</b>	\$ 5,898,327	\$ 3,706,968	\$ 9,605,295
<b>Professional services</b>			
Actuarial services	149,288	94,785	244,073
Legal services	134,927	17,759	152,686
Technology consulting	191,724	117,509	309,233
Financial audit services	51,339	31,466	82,805
Legislative consulting	27,900	17,100	45,000
Other consultants	14,347	8,793	23,140
Insurance consulting	3,720	2,280	6,000
Total professional services	573,245	289,692	862,937
<b>Communications</b>			
Information and publicity	211,044	135,710	346,754
Postage	351,044	229,876	580,920
Member education	18,746	10,662	29,408
Telephone	30,463	18,664	49,127
Total communications	611,297	394,912	1,006,209
<b>Miscellaneous</b>			
Building and utilities	180,964	110,914	291,878
Insurance	145,060	1,026	146,086
Office	1,565,041	959,404	2,524,445
Staff development	149,350	91,576	240,926
Miscellaneous	166,898	74,711	241,609
Total miscellaneous	2,207,313	1,237,631	3,444,944
<b>Depreciation expense</b>	721,779	-	721,779
<b>Total administrative expenses</b>	\$ 10,011,961	\$ 5,629,203	\$ 15,641,164



Public School Retirement System of Missouri and  
Public Education Employee Retirement System of Missouri

Schedules of Investment Expenses  
for the year ended June 30, 2015

	PSRS	PEERS	Combined Totals
<b>Investment management expenses</b>			
U.S. Treasuries and TIPS	\$ 4,118,346	\$ 457,594	\$ 4,575,940
U.S. public equities	67,462,957	7,495,884	74,958,841
Non-U.S. public equities	18,202,990	2,022,555	20,225,545
Public debt	6,676,994	741,888	7,418,882
Private equity	146,740,536	16,304,504	163,045,040
Private credit	171,010	19,001	190,011
Private real estate	47,447,200	5,271,911	52,719,111
Hedged assets	101,043,130	11,227,065	112,270,195
Total investment management expenses	391,863,163	43,540,402	435,403,565
<b>Investment consultant fees</b>	4,203,460	467,051	4,670,511
<b>Custodial bank fees</b>	494,739	54,971	549,710
<b>Investment staff expenses</b>	7,036,461	695,184	7,731,645
<b>Commission recapture income</b>	(222,790)	(25,123)	(247,913)
Total investment expenses	\$ 403,375,033	\$ 44,732,485	\$ 448,107,518
<b>Security lending expenses</b>			
Agent fees	\$ 890,224	\$ 98,914	\$ 989,138
Broker rebates	(3,258,681)	(362,076)	(3,620,757)
Total security lending expenses (income)	\$ (2,368,457)	\$ (263,162)	\$ (2,631,619)

Public School Retirement System of Missouri and  
Public Education Employee Retirement System of Missouri

Schedules of Professional Services  
for the year ended June 30, 2015

	PSRS	PEERS	Combined Totals
Actuarial services	\$ 149,288	\$ 94,785	\$ 244,073
Legal expenses	134,927	17,759	152,686
Technology consulting	191,724	117,509	309,233
Financial audit services	51,339	31,466	82,805
Legislative consulting	27,900	17,100	45,000
Other consulting	14,347	8,793	23,140
Insurance consulting	3,720	2,280	6,000
Total fees	\$ 573,245	\$ 289,692	\$ 862,937

## Financial Security

### Peace of Mind about Investment Decisions

Because PSRS and PEERS are Defined Benefit (DB) pension plans, you don't need to worry about making investment decisions regarding your retirement funds. PSRS/PEERS professional investment staff and managers expertly invest your PSRS/PEERS funds.

We are a large institutional investor, and can invest all our members' retirement funds economically, pooling risk and providing reliable retirement security through long-term investments.

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## Letter from Towers Watson

TOWERS WATSON 600 University St.  
Suite 3100  
Seattle, WA 98101-2933

T +1 206 343 6000

towerswatson.com

December 4, 2015

To the Members of the Board:

In contrast to the prior few fiscal years of strong equity returns, fiscal year 2015 saw mixed results in equity markets, with U.S. equities producing modest returns while international developed and emerging markets struggled. Europe witnessed heightened volatility due to the uncertainty around Greece while a sell-off in domestic Chinese shares drove emerging markets lower. Domestic fixed income markets also produced mixed results as longer dated U.S. government bonds rallied and credit bonds detracted amid speculation of interest rate increases. Longer dated U.S. government bonds returned +6% while long corporate bonds had -0.9% returns as spreads widened after hitting near all-time lows in 2014. Looking forward to the coming year, the focus will remain on when the Fed will decide to raise interest rates and what the outlook is for global economic growth, specifically in China.

PSRS and PEERS plans are combined to show one performance number for the consolidated Missouri Education Pension Trust (MEPT). The Total Fund return for the fiscal year ended June 30, 2015 was 4.52%, which was ahead of the policy benchmark return of 3.50%. The MEPT fiscal year return for public risk assets were moderate at +4.10% and safe assets were also positive for the year at +1.19%. MEPT private risk assets returned +10.88% vs. +8.75% for its benchmark.

The Fund continues to evolve through ongoing refinement of the public risk portfolio, specifically within the equity and credit portfolios. As a result of this work, PSRS/PEERS will look to take advantage of both internal and external resources in their effort to manage the portfolio through the volatile investment climate.

In the next fiscal year, Towers Watson will begin work with the PSRS/PEERS internal investment staff, evaluating the overall asset allocation through the completion of an asset liability modelling study.

We at Towers Watson have enjoyed our relationship with Missouri PSRS/PEERS and are looking forward to the coming year.

Regards,  
Towers Watson Investment Services, Inc.



Michael M. Hall, ASA, CFA  
West Division Investment Leader

## Letter from the Chief Investment Officer



PUBLIC SCHOOL & EDUCATION EMPLOYEE  
RETIREMENT SYSTEMS OF MISSOURI

November 24, 2015

To the Members of the Systems:

Throughout this year's Financial Report you will see the phrase: ***"Peace of Mind in Retirement"***. As an active member within PSRS or PEERS, you have the ability to focus on your family and your career knowing that you have retirement security in the future. As a retired PSRS or PEERS member, you experience that security more tangibly through a monthly retirement benefit. Thus, whether you are an active member or a retiree, you experience ***Peace of Mind*** regarding your retirement. The foundation of that ***Peace of Mind*** is the professional investment program that has been developed at PSRS and PEERS throughout the last 30 years. The Systems have invested for your retirement through the Stock Market Crash of 1987, the Asian Crisis in 1997, the Dotcom Bubble in 2000 and the Global Financial Crisis in 2007. Despite the market volatility, the PSRS and PEERS investment program has been able to focus on the long-term, resulting in an annualized investment return for the Systems over the last 30 years of 9.1%.

Low bond yields and negative returns in the non-U.S. stock market provided a difficult environment for institutional investors in fiscal year 2015. However, the strength in the U.S. stock market, private equity and the real estate markets allowed PSRS/PEERS to achieve positive returns during the year. The Systems' assets increased through investment earnings by over \$1.1 billion from the previous year with a total fund performance of 4.5% for both PSRS and PEERS.

### Key Points within this year's Financial Report

As you review the financial information in this report for the fiscal year ended June 30, 2015, it is important to be aware of the following points:

- The PSRS and PEERS investment returns for fiscal year 2015 exceeded 85% of the peer group as defined by the Wilshire TUCS universe of public pension plans with assets in excess of \$1 billion,
- The Systems generated the investment return while taking less risk than approximately two-thirds of comparable public funds,
- The PSRS/PEERS internal investment staff and external investment managers added value above the policy benchmark of over \$300 million, net of all fees and expenses. The outperformance in 2015 was due to portfolio construction and tactical asset allocation decisions by internal investment staff (overweighting and underweighting asset classes around targets) as well as active management on the part of external managers,
- The majority of the Systems' primary asset categories (U.S. Equity, Non-U.S. Equity, Hedged Assets and Private Risk Assets) generated returns in excess of established policy benchmarks for the year,
- The PSRS/PEERS investment expenses (including accrued performance based fees and all internal investment staff expenses) for fiscal year 2015 were 1.16%, or \$1.16 for every \$100 managed.

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The investment returns reported throughout this publication are mostly net of these fees. The investment return net of all fees and expenses for PSRS and PEERS was 4.32%,

- Total Systems' assets have increased through investment earnings by \$16.8 billion over the last five years,
- Investment performance throughout this report is calculated using a time-weighted rate of return based on market values, and
- The total assets of both PSRS and PEERS were approximately \$38.6 billion on June 30, 2015, making the combined entity larger than all other public retirement plans in the state combined, and the 44<sup>th</sup> largest defined benefit plan in the United States.

## Fiscal Year 2015 Year in Review

The internal investment staff, under the direction of the PSRS/PEERS Board of Trustees, has adopted a disciplined and diversified investment portfolio over the past several years that includes allocations to multiple asset classes. In each year or market cycle, every specific asset class within the PSRS/PEERS investment portfolio performs a valuable function.

In fiscal year 2015, the combined asset allocation provided the Systems with below average (yet positive) investment returns. U.S. stocks returned 7.3% for the fiscal year ended June 30, 2015 (as measured by the Russell 3000 Index), non-U.S. developed stocks declined 4.2% (as measured by the MSCI EAFE Index), and emerging market stocks fell 5.1% (as measured by the MSCI Emerging Markets Index). U.S. Treasury Bonds provided low absolute returns for PSRS/PEERS, increasing 1.8% for the year.

Diversification into private equity and private real estate proved beneficial for the year as the Real Estate Composite returned 14.0% and the Private Equity Composite increased 9.6%. The adoption of private asset classes were not only additive to the PSRS/PEERS total fund performance in fiscal year 2015 but also proved beneficial over the last five years. The Hedged Asset Program generated a 3.2% return for the fiscal year, outperforming the 1-year return of the HFRI Hedge Fund Index at 2.3%. The objective of the Hedged Assets Program is to provide competitive returns, diversification and lower volatility (risk) than the Systems' stock portfolios.

As noted above, significant absolute returns in a couple of the major asset classes contributed to the 4.5% return for PSRS and PEERS in fiscal year 2015. Additionally, the investment returns were supported by solid implementation (stock selection) and tactical asset allocation decisions. For example, the PSRS/PEERS Non-U.S. Equity Composite outperformed its benchmark (MSCI All Country World Free ex U.S. Index) by 4.7% in fiscal year 2015, while the PSRS/PEERS Real Estate Composite outperformed its benchmark (NCREIF Property Index) by 1.1%. From a portfolio construction and tactical standpoint, the internal investment staff maintained a substantial overweight to U.S. stocks and emerging market stocks relative to Europe throughout the year. The overweight to U.S. stocks relative to non-U.S. developed stocks provided meaningful contribution to the overall PSRS/PEERS return in fiscal year 2015.

## Fiscal Year 2016: Low Return Environment

In my annual letter last year I wrote about the low return environment that PSRS/PEERS, and all institutional investors, were facing. As I write the annual letter this year (at the end of November 2015), not much has changed. Investors are still waiting for the Federal Reserve to raise interest rates and asset prices are very similar to a year ago. The yield on the 10-year Treasury was 2.2% on November 30, 2014 and the S&P 500 was at 2,067. As we close out November of 2015, the current yield on the 10-year Treasury and the price of the S&P 500 remain close to the levels of last year.

## Letter from the Chief Investment Officer, continued

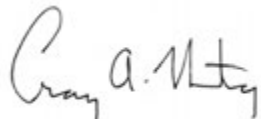
PSRS/PEERS have developed a long-term strategic asset allocation that is designed to achieve the assumed investment return of 8.0% over long periods of time. The Board has also adopted an Investment Policy that provides the PSRS/PEERS internal investment staff and external advisors with the flexibility to deviate from the strategic asset allocation within appropriate bands. To that end, due to historically low interest rates and attractive valuations within the equity markets, PSRS and PEERS were significantly overweight to stocks and underweight to safe (riskless) assets beginning in 2009. However, toward the end of calendar year 2014, the Systems' internal investment staff began to move back toward the long-term target asset allocation by reducing the amount in U.S. stocks and increasing the amount in safe assets (specifically cash) and private assets. The move was directed because stock prices increased throughout 2014, indicating full valuation from a fundamental standpoint. Moreover, the Systems continued to increase the allocation to private investments (real estate, private equity) in the low-rate environment primarily because there is a return premium afforded to those investors willing to accept illiquidity risk and because it increases the diversification of the fund. At the end of 2015, PSRS/PEERS remain close to the long-term targets in all asset classes.

We continue to believe that in the current environment it is prudent to maintain a healthy allocation to safe assets (Treasuries and cash) and hedged assets to reduce the total volatility of the fund. PSRS/PEERS is obviously sacrificing yield in the short-term but it is expected that this will give the Systems more flexibility in the future. In the simplest form, we strive to provide consistent performance by building a portfolio that offers significant protection during market weakness but also can participate in periods of market strength.

As we move closer to calendar year 2016, the PSRS/PEERS asset allocation continues to exhibit an overweight to U.S. stocks (relative to developed non-U.S. stocks) due to an uncertain outlook for Europe. Additionally, the Systems are overweight to emerging market stocks due to higher long-term growth prospects and better fundamental valuations. Corporate bonds became more attractive in the latter stages of calendar year 2015. As such, the Systems increased the allocation to both investment grade and below investment corporate bonds. Finally, in terms of investment implementation, PSRS/PEERS have maintained a healthy allocation to active management due to an expectation that a greater level of 'alpha' (or excess return above the market) can be achieved in a less certain market environment.

Under the support and guidance of the Board of Trustees, I am confident that the investment program at PSRS/PEERS will continue to provide the Systems with an excellent opportunity to achieve solid investment returns over future economic and capital market environments. Most importantly, I believe the portfolio is well-positioned to ensure that all members receive the financial security and *Peace of Mind* they have earned through their hard work and dedication.

Respectfully,



Craig A. Husting, CFA  
Chief Investment Officer



## Investment Policy Summary

The Board of Trustees of the Public School Retirement System of Missouri and Public Education Employee Retirement System of Missouri (PSRS and PEERS, also referred to as the Systems) is charged with the responsibility for investing the assets of the Systems in a manner consistent with the fiduciary standards set forth in the 'prudent person' rule. To that end, the Board has adopted the following principles to guide all investment-related decisions:

1. Act in the exclusive interest of the members of the Systems,
2. Maximize total return within prudent risk parameters, and
3. Preserve the long-term purchasing power of the Systems.

The investment portfolios of PSRS and PEERS represent all contributions to the plans, from members and their employers, as well as all net earnings on these assets. These funds are held in support of both current and future liabilities. In total, approximately 62% of every dollar used to pay retirees is generated from investment earnings<sup>1</sup>.

The Board of Trustees of PSRS and PEERS approved the commingling of assets for purposes of investment as allowed by state statute. In order to implement this change, PSRS and PEERS adopted the Missouri Education Pension Trust Agreement (MEPT), which is managed by the PSRS and PEERS Board of Trustees and Investment Staff. Effective July 1, 2013, the invested assets of the Systems were pooled and invested in MEPT. All assets held by MEPT are for the exclusive benefit of PSRS and PEERS. Each of the Systems has equity in MEPT based on funds contributed and earnings allocated. Earnings of MEPT are allocated based on the average daily balances of each of the respective Systems. Individual investments in MEPT are not specifically identified to the respective Systems. Due to the fact all invested assets are invested in MEPT, the rate of return for each of the Systems is approximately the same. Therefore, the following discussions focus on MEPT in total and not the individual Systems.

<sup>1</sup> Based on a twenty-year average for fiscal years 1995-2015.

<sup>2</sup> The real rate of return is the rate by which the long-term total return exceeds the long-term inflation rate. The Board of Trustees shall employ an actuarial consultant for purposes of determining the inflation rate to be used in calculating the pension obligations. The assumed inflation rate as of June 30, 2015 was 2.5% per annum.

## Investment Objective

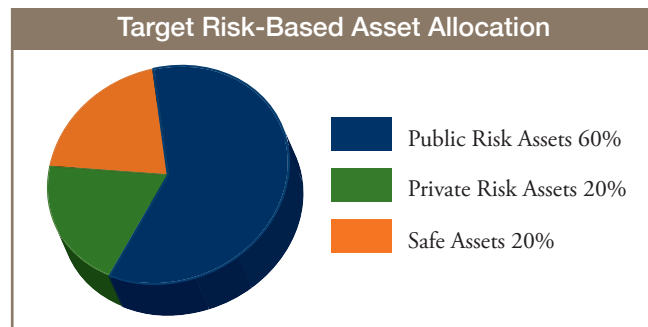
Based on the general beliefs about the long-term investment returns available from a well-diversified, prudently invested portfolio, the Board has adopted an objective to achieve a **total nominal investment return of 8.0% with a real rate of return of at least 5.5% per annum over time.**<sup>2</sup>

In order to achieve this rate of return, the Systems have developed a portfolio that is prudently invested across a broad array of assets that reflects the long-term nature of the Systems' pension obligations. The principles of diversification, risk control, and competitive rates of return provide the framework for selecting an asset allocation that is expected, over longer periods of time and in the aggregate, to give the Systems the most competitive long-term return within a prudent level of risk.

## Understanding Risk

Selection of an appropriate asset allocation is one of the most important decisions made by a retirement plan. Within that asset allocation, it is important to not only consider the expected investment return, but also to understand the risks. The importance of risk consideration for institutional investors is critical to long-term success. To that end, the Systems employ an effective and intuitive risk-based approach to setting and reporting the asset allocation decision. The Systems developed a risk-based asset allocation to clearly define the prudent risks taken within its investment portfolios. The Systems consider a variety of risks including, but not limited to, liquidity risk, volatility, tail risk (the possibility that an investment will move much more than expected) and the ability to meet the Systems' assumed rate of return when structuring the portfolio.

This analysis results in an asset allocation to Public Risk Assets, Safe Assets and Private Risk Assets. Within each risk allocation, the Systems' investment portfolio includes strategic, long-term commitments to specific asset programs.



## Roles and Responsibilities

### Board of Trustees

It is the responsibility of the Board of Trustees (Board) to establish and maintain policies and objectives for all aspects of the Systems' investment program including the determination of long-term policies for risk tolerance and asset allocation.

In keeping with its obligation to serve as the governing fiduciary, any changes to the investment policy or investment implementation manuals require the Board's approval.

As one of the largest public pension funds in the United States, the Systems' operational requirements are complex. In order to properly administer the Systems and carry out investment strategies, the Board relies heavily on both internal staff and external service providers. Due to the number of parties involved, their roles as fiduciaries are clearly identified to ensure distinct lines of responsibility and proper controls exist, while providing increased operational efficiency and elimination of duplication of effort.

### Executive Director

The Executive Director (Director) is appointed by, and serves at the pleasure of the Board. The Director is responsible for planning, organizing, and administering all operations of the Systems under the broad policy guidance and direction of the Board. The Director, with the assistance of the investment staff, monitors the performance of the investment portfolio; ensures that funds are invested in accordance with Board policies; and, ensures that proper internal controls are developed to safeguard the assets of the Systems. In fulfilling these responsibilities, the Director relies heavily on the Chief Investment Officer and external asset consultants.

### Chief Investment Officer

The Chief Investment Officer (CIO) serves at the pleasure of the Director yet has a direct, but limited, link to the Board on investment-related issues. The CIO's sole access to the Board is for submission of investment reports, information, or communications required by the investment policy and any other information or opinions specifically requested by the Board with regard to the investment program. The CIO is the individual primarily responsible for providing direction for the investment program. It is the CIO's responsibility to work with the Director, the general consultant, specialty

consultants, and other external service providers, with the assistance of the internal staff, in advising the Board on policies related to the investment program. The CIO has responsibilities related to hiring and terminating service providers.

Critical functions of the CIO include recommendations for implementation decisions related to the investment plan and for the strategic allocation of the portfolio within broad ranges approved by the Board.

### External Asset Consultants

The Systems employ Towers Watson as a general consultant and Albourne America, LLC (Albourne), Pathway Capital Management (Pathway) and The Townsend Group (Townsend) as specialty consultants. Towers Watson is an independent resource available to collaborate with the Board and staff on the investment process. This typically includes regular meetings with the Board to provide an independent perspective on the Systems' goals, structure, performance and external service providers. Additionally, Towers Watson may be involved with the strategic allocation shifts for the portfolio.

The specialty consultants work on specific programs within the overall investment program. Albourne is utilized for the Private Credit, Private Equity, Hedged Assets and Alpha Overlay programs, Pathway is a consultant for the Private Equity and Private Credit programs and Townsend consults on the Real Estate program.

### External Investment Managers

The Systems employ external investment managers that include external money managers which may be structured as public or private entities in the form of a partnership, limited liability company, trust, separately managed account, commingled account, or some other form of operational structure in which assets may be held by an external custodian selected and monitored by the external manager.

Managers are given explicit written directions detailing their particular assignments or they follow the investment program outlined in their offering documents or Limited Partnership Agreements, and will construct and manage investment portfolios that are consistent with the investment philosophy and disciplines for which they were hired. Discretion is delegated to the managers to carry out investment actions as directed by the Systems.

## Master Custodian

JP Morgan Chase Bank, NA (JP Morgan) serves as the master custodian for the Systems. The master custodian holds most cash and securities for the Systems, except in cases where investment in a partnership, commingled account, or unique asset class makes it impossible to do so. The Systems thoroughly evaluate the structure of all investments and their custody arrangements. JP Morgan is responsible for providing the official book of record for performance reporting and accounting, and serves as an additional layer of risk control in safekeeping the Systems' assets.

## Asset Allocation

The asset allocation decision is generally regarded as the most important decision in the investment management process since it is crucial to achieving the long-term objectives established by the Board. In that light, it is the Board's responsibility to determine the appropriate policy asset allocation based upon several criteria with input and guidance from internal staff and Towers Watson. These criteria are as follows:

1. The expected rate of return for each asset classification;
2. The expected risk of each asset classification (expressed as the standard deviation of the rate of return);
3. The correlation of returns between asset types;
4. The investment objectives and risk constraints of the Systems (including but not limited to liquidity needs and the expected time horizon);
5. The funded ratio and cash flow requirements for PSRS and PEERS; and
6. The impact of the Systems' return volatility on the contribution rate.

The long-term policy allocation as of June 30, 2015 is illustrated in the following table. The allocation to each investment program considers both the risk tolerance of the Systems and the long-term return objective.

Asset Allocation		
Investment Type	Long-Term Target	Policy Range
<b>Public Risk Asset Programs</b>		
U.S. Public Equity	27.00%	16% - 48%
Public Credit	12.00%	0% - 20%
Hedged Assets	6.00%	0% - 25%
Non-U.S. Public Equity	15.00%	8% - 28%
<b>Total Public Risk Assets</b>	<b>60.00%</b>	<b>35% - 75%</b>
<b>Safe Asset Programs</b>		
U.S. Treasuries	16.00%	0% - 40%
U.S. TIPS	4.00%	0% - 40%
Cash Equivalents	0.00%	0% - 10%
<b>Total Safe Assets</b>	<b>20.00%</b>	<b>10% - 40%</b>
<b>Private Risk Asset Programs</b>		
Private Equity	10.50%	4% - 14%
Private Real Estate	7.50%	4% - 10%
Private Credit	2.00%	0% - 7%
<b>Total Private Risk Assets</b>	<b>20.00%</b>	<b>5% - 25%</b>
<b>Total Fund</b>	<b>100.0%</b>	

The Board recognizes the cyclical nature of the investment markets and it has allowed the internal staff to capitalize upon opportunities by changing the allocation of each asset class or sub-asset class within broad strategic bands or policy ranges (as indicated in the table above). The flexibility given to the internal staff in establishing the strategic mix provides opportunities for the Systems to take advantage of changing market conditions. To ensure appropriate controls, the Director, CIO and Towers Watson must unanimously agree upon all material strategic changes prior to implementation.

## Performance Objectives and Monitoring Process

Generating a total nominal rate of return net of expenses of at least 8% and a real rate of return net of expenses of at least 5.5% per annum is an important consideration in the asset allocation decision and the primary performance objective for the Systems over long periods of time. The need for a long-term focus is necessary to preclude the temptation to overreact to events in the financial markets that have no relevance to long-term asset/liability management of the Systems. The resulting dilemma is the conflicting requirement to evaluate investment policy implementation over shorter time periods while maintaining a longer-term focus on meeting the return objectives. In order to determine if the Systems' shorter-term and long-term objectives are being achieved, the Board evaluates performance relative to policy and strategic benchmarks. The policy benchmarks allow the Systems to be judged by performance relative to a defined set of broad market indices (i.e., the Systems' long-term asset allocation objective). The strategic benchmarks allow the Board to consider the additional value generated from the latitude given to the internal staff to alter the asset class or sub-asset class allocations.

### Policy Decisions

The value added through policy decisions is measured by the difference between the policy benchmark return and the actuarial required rate of return objective (defined as Real Return Objective + Inflation). A policy benchmark return greater than the actuarial required rate of return reflects value added. A policy benchmark return less than the actuarial required rate of return reflects losses or shortfalls in performance in funding the liabilities of the Systems. These policy decisions are measured over long periods of time.

### Strategy Decisions

Strategy decisions are asset class or sub-asset class asset allocation choices made by the internal staff to deviate from the policy benchmark weights, with approval from the General Consultant and the Director that the proposed material deviation is in compliance with the

Board's investment policy. The value added through these decisions to overweight and/or underweight these sub-asset classes is measured by the difference between the strategic benchmark return and the policy benchmark return. This difference captures the value added by internal staff through sub-asset class strategic decisions relative to the Board's broad policy allocation decisions. A strategic benchmark return greater than the policy benchmark return reflects value added through the allocation decisions. A strategic benchmark return less than the policy benchmark return reflects losses to the fund's performance based upon strategy decisions.

### Implementation Decisions

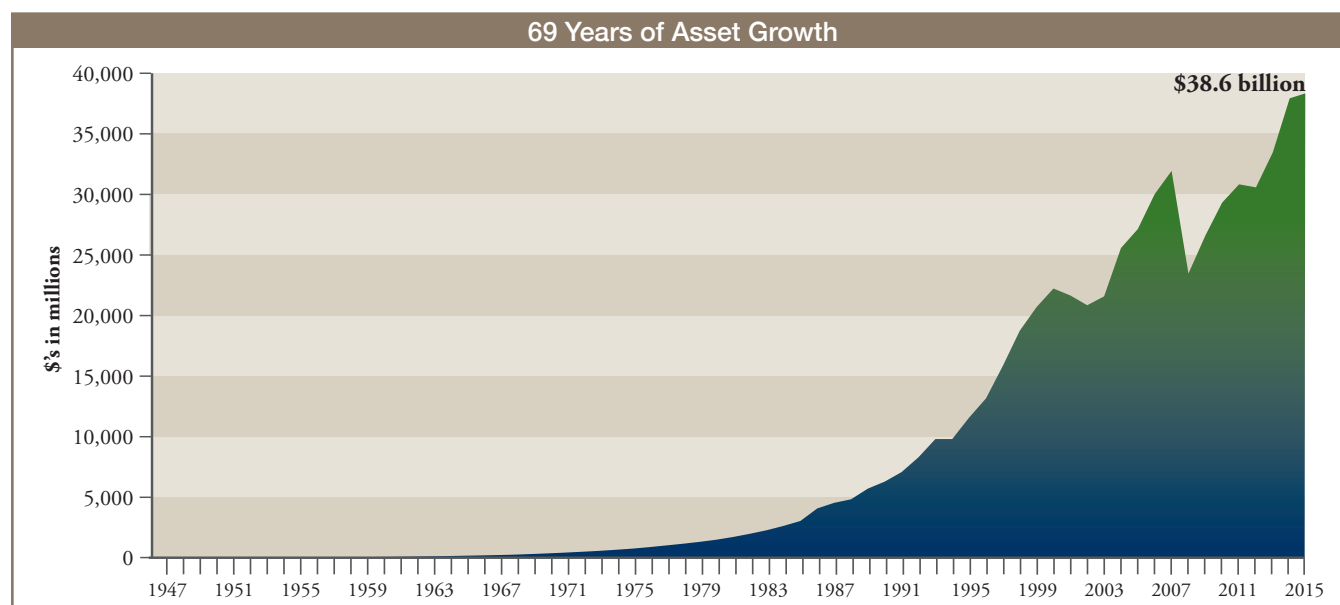
Implementation decisions are manager selection choices made by the internal staff with the approval of a consultant(s) and the Director. The value added through these manager selection decisions is measured by the difference between the actual portfolio return and the strategic benchmark return. An actual portfolio return greater than the strategic benchmark return reflects value added through these manager selection decisions. An actual portfolio return less than the strategic benchmark return reflects losses to the fund's performance based upon implementation decisions.

## Risk Controls

The Board recognizes that even though the Systems' investments are subject to short-term volatility, it is critical that a long-term investment focus be maintained. Given the importance of the broad asset allocation decision to the Systems' long-term investment success, internal staff is required to conduct an asset allocation/liability study at least every five years and to report the results of that study to the Board. The last experience study was conducted in 2011 and the next experience study is scheduled for 2016. In addition, the CIO must annually evaluate the asset allocation mix and any strategic allocation of the portfolio and provide a report to the Board on the results of that evaluation. This ongoing review of the asset allocation process helps to ensure the asset allocation is being monitored and modified as needed to meet the financial obligations of the Systems.



## Total Fund Review



The Systems' total invested assets were \$38.6 billion as of June 30, 2015. There has been a consistent and long-term growth in assets since the inception of PSRS in 1946 and PEERS in 1965, as shown in the graph above.

### Investment Performance<sup>3</sup>

The Systems earned an investment return of 4.5% for fiscal year 2015. The total plan return exceeded the total plan policy benchmark return of 3.5% but fell short of the long-term objective (actuarial assumption) of 8.0%. The Systems' 2015 fiscal year return net of all fees and expenses was 4.3%. Over long periods of time, the Systems continue to produce investment returns that meet or exceed the Systems' objective. The annualized investment return for the Systems' over the last five years is 11.3% and 9.1% over the last 30 years.

As illustrated in the tables below, within the Systems' investment portfolios, U.S. equities delivered returns of 7.9%, private equity (investments in private companies) increased 9.6%, real estate produced 14.0% returns, and hedged assets returned 3.2%. Each of these asset classes strongly contributed to the total returns of the Systems while providing diversification from non-US equities and fixed income securities.

Total Fund Performance		
Assets	Total Return	Weighted Contribution*
U.S. Public Equity	7.9%	2.4%
Public Credit	0.0%	0.0%
Hedged Assets	3.2%	0.4%
Non-U.S. Public Equity	-0.6%	-0.1%
<b>Public Risk Assets</b>	<b>4.1%</b>	<b>2.7%</b>
U.S. Treasuries	1.8%	0.3%
U.S. TIPS	-1.9%	-0.1%
Cash Equivalents	0.5%	0.0%
<b>Safe Assets</b>	<b>1.2%</b>	<b>0.2%</b>
Private Equity	9.6%	0.7%
Private Real Estate	14.0%	1.0%
Private Credit	-2.9%	-0.1%
<b>Private Risk Assets</b>	<b>10.9%</b>	<b>1.6%</b>
<b>TOTAL RETURN</b>	<b>4.5%</b>	<b>4.5%</b>

*\*Percentages have been adjusted to reflect compounding effects and changes in asset weights.*

<sup>3</sup> Investment returns were prepared using a time-weighted rate of return based on market values.

Investment Performance Relative to Benchmarks**				
	Fiscal Year	3-Year	5-Year	10-Year*
<b>Public Risk Assets Programs</b>				
<b>U.S. Public Equity</b>	<b>7.9%</b>	<b>18.7%</b>	<b>18.4%</b>	<b>8.6%</b>
Russell 3000 Index	7.3%	17.7%	17.5%	8.2%
<b>Public Credit</b>	<b>0.0%</b>	<b>2.1%</b>	<b>4.2%</b>	<b>n/a</b>
Barclays U.S. Intermediate Credit Index	1.5%	2.9%	4.2%	n/a
<b>Hedged Assets</b>	<b>3.2%</b>	<b>9.0%</b>	<b>9.0%</b>	<b>n/a</b>
Hedged Assets Benchmark	1.3%	8.2%	8.6%	n/a
<i>Benchmark consists of:</i>				
50.0% Barclays U.S. Intermediate Credit Index				
25.0% MSCI ACWI ex-USA Index				
25.0% Russell 3000 Index				
<b>Non-U.S. Public Equity</b>	<b>-0.6%</b>	<b>12.0%</b>	<b>9.8%</b>	<b>6.3%</b>
MSCI ACWI ex-USA Index	-5.3%	9.1%	8.1%	5.7%
<b>Total Public Risk Assets</b>	<b>4.1%</b>	<b>12.9%</b>	<b>12.6%</b>	<b>6.8%</b>
Public Risk Assets Benchmark	2.4%	11.6%	11.7%	5.7%
<i>Benchmark consists of:</i>				
47.5% Russell 3000 Index				
27.5% MSCI ACWI ex-USA Index				
25.0% Barclays U.S. Intermediate Credit Index				
<b>Safe Assets Program</b>				
<b>Total Safe Assets</b>	<b>1.2%</b>	<b>0.4%</b>	<b>2.4%</b>	<b>3.8%</b>
Safe Assets Benchmark	1.4%	0.7%	2.6%	3.7%
<i>Benchmark consists of:</i>				
72.0% Barclays U.S. Treasury: Intermediate Index				
8.0% Barclays U.S. Treasury: Long Index				
20.0% Barclays U.S. TIPS 1-10 Years Index				
<b>Private Risk Assets Program</b>				
<b>Private Equity</b>	<b>9.6%</b>	<b>16.5%</b>	<b>15.5%</b>	<b>11.2%</b>
Russell 3000 Index	7.3%	17.7%	17.5%	8.2%
<b>Private Real Estate</b>	<b>14.0%</b>	<b>13.4%</b>	<b>14.1%</b>	<b>4.8%</b>
NCREIF Property Index	13.0%	11.6%	12.7%	5.5%
<b>Private Credit</b>	<b>-2.9%</b>	<b>8.0%</b>	<b>10.0%</b>	<b>n/a</b>
Merrill Lynch High Yield Master II Index	-0.6%	6.8%	8.4%	n/a
<b>Total Private Risk Assets</b>	<b>10.9%</b>	<b>14.4%</b>	<b>14.4%</b>	<b>n/a</b>
Private Risk Assets Benchmark	8.8%	14.4%	15.0%	n/a
<i>Benchmark consists of:</i>				
52.5% Russell 3000 Index				
37.5% NCREIF Property Index				
10.0% Merrill Lynch High Yield Master II Index				
<b>TOTAL FUND</b>				
<b>Total Fund</b>	<b>4.5%</b>	<b>11.2%</b>	<b>11.3%</b>	<b>6.6%</b>
Total Fund Benchmark	3.5%	10.0%	10.6%	6.1%
<i>Benchmark consists of:</i>				
39.0% Russell 3000 Index				
16.5% MSCI ACWI ex-USA Index				
14.4% Barclays U.S. Treasury: Intermediate Index				
1.6% Barclays U.S. Treasury: Long Index				
15.0% Barclays U.S. Intermediate Credit Index				
7.5% NCREIF Property Index				
4.0% Barclays U.S. TIPS 1-10 Years Index				
2.0% Merrill Lynch High Yield Master II Index				
<b>Actuarially Required Rate of Return</b>	<b>8.0%</b>	<b>8.0%</b>	<b>8.0%</b>	<b>8.0%</b>
<b>TUCS Universe Median</b>	<b>3.2%</b>	<b>10.4%</b>	<b>10.9%</b>	<b>6.9%</b>

\*Some programs have been established more recently and therefore 10-year returns are not available.

\*\*Investment returns were prepared using a time-weighted rate of return based on market values.

## Investment Performance Relative to Benchmarks

The Board has established a long-term goal to achieve a total investment return of at least 8.0% per year and a real rate of return of at least 5.5% per year. The investment returns for the three-year and five-year time periods are substantially higher than the long-term investment objective. Additionally, the 30-year annualized total return of 9.1% for the Systems exceeds the long-term return objective of 8.0%.

As discussed previously, in order to determine if the Systems' shorter-term and long-term objectives are being achieved, the Board also utilizes three benchmarks by which the Systems' progress may be judged: (1) performance relative to a **policy benchmark** (defined set of broad market indices that reflects the Systems' long-term asset allocation, or market beta), (2) performance relative to a **strategic benchmark** which indicates value added by the internal staff, and, to a lesser extent, (3) performance relative to other public pension systems and their investment managers as a reference point of oversight.

The investment return for fiscal year was lower than the long-term expected return of 8.0% but far better than most other institutional investors. The Systems' investment return for fiscal year 2015 exceeded 85% of the peer group as defined by the Wilshire TUCS universe of public pension plans with assets in excess of \$1 billion. Additionally, the Systems generated the fiscal year 2015 return (and longer-term investment returns) while taking less risk than approximately two-thirds of comparable public funds in the United States.

As the chart on page 54 indicates, the total returns for the fiscal year, three-year and five-year time periods significantly exceeded the median return of other large public funds. Total returns for ten-year time periods were marginally below the public fund median return primarily due to asset allocation and risk tolerance differences. The 2015 TUCS universe data indicates the Systems have taken substantially less risk than comparable funds during all time periods.

The internal staff presents to the Board a detailed attribution of the total fund performance at the end of each fiscal year. Value is added over and above expected market returns if the strategic benchmark exceeds the policy benchmark (i.e., the internal staff made positive strategic decisions) and/or if the actual total fund return exceeds the strategic benchmark. The table below summarizes the substantial value that has been created over recent time periods. The total plan strategic benchmark was established more recently so a 10-year return is not available.

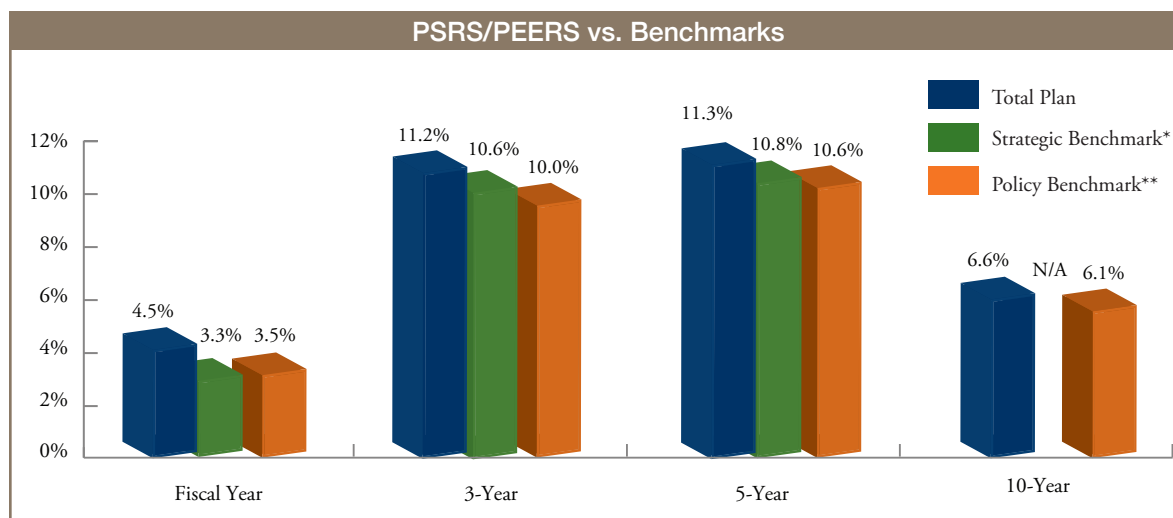
Performance Attribution			
	Fiscal Year	3 Year	5 Year
Strategic Benchmark	3.33%	10.59%	10.83%
Policy Benchmark	3.50%	9.95%	10.55%
<b>Value Added Through Strategic Decisions to Reposition Portfolio</b>	<b>-0.17%</b>	<b>0.64%</b>	<b>0.28%</b>
Actual Fund Return	4.52%	11.22%	11.30%
Strategic Benchmark	3.33%	10.59%	10.83%
<b>Value Added Through Implementation</b>	<b>1.19%</b>	<b>0.63%</b>	<b>0.47%</b>
Total Value Added	1.02%	1.27%	0.75%
Fees Paid Outside of Investment Structures	-0.20%	-0.20%	-0.20%
<b>Total Value Added (Net of Fees and Expenses)</b>	<b>0.82%</b>	<b>1.07%</b>	<b>0.55%</b>

The total returns exceeded the policy benchmark by 0.82% (net of all fees and expenses), for fiscal year 2015. This resulted in over \$300 million in excess performance to the Systems. The Systems have experienced approximately \$950 million (net of all fees and expense) excess performance over the past five years. The total fund returns have exceeded the policy benchmark in eight of the last ten fiscal years, an indication that internal staff and active investment management have added value to the Systems.

## Statistical Performance

One of the primary investment objectives of the Systems is to achieve returns similar to the market but at lower risk or volatility levels. To that end, internal staff monitors a number of quantitative risk statistics related to the total investment portfolio as well as individual composites. The table below indicates that the Systems have taken less risk than the policy benchmark (as measured by standard deviation) over all time periods while achieving higher returns, thereby indicating strong risk-adjusted performance.

**Beta** measures the volatility, or systematic risk, of a security or portfolio in comparison to the market as a whole. If a portfolio has a beta of 1.0, it indicates that the portfolio moves in unison with the market. The Systems' portfolios have a beta of less than 1.0 relative to the policy benchmark, indicating less market volatility. The Systems' beta relative to the world stock index (ACWI World Index) is approximately 0.50. This signifies that the Systems' portfolio moves up or down approximately half as much as the world stock index.



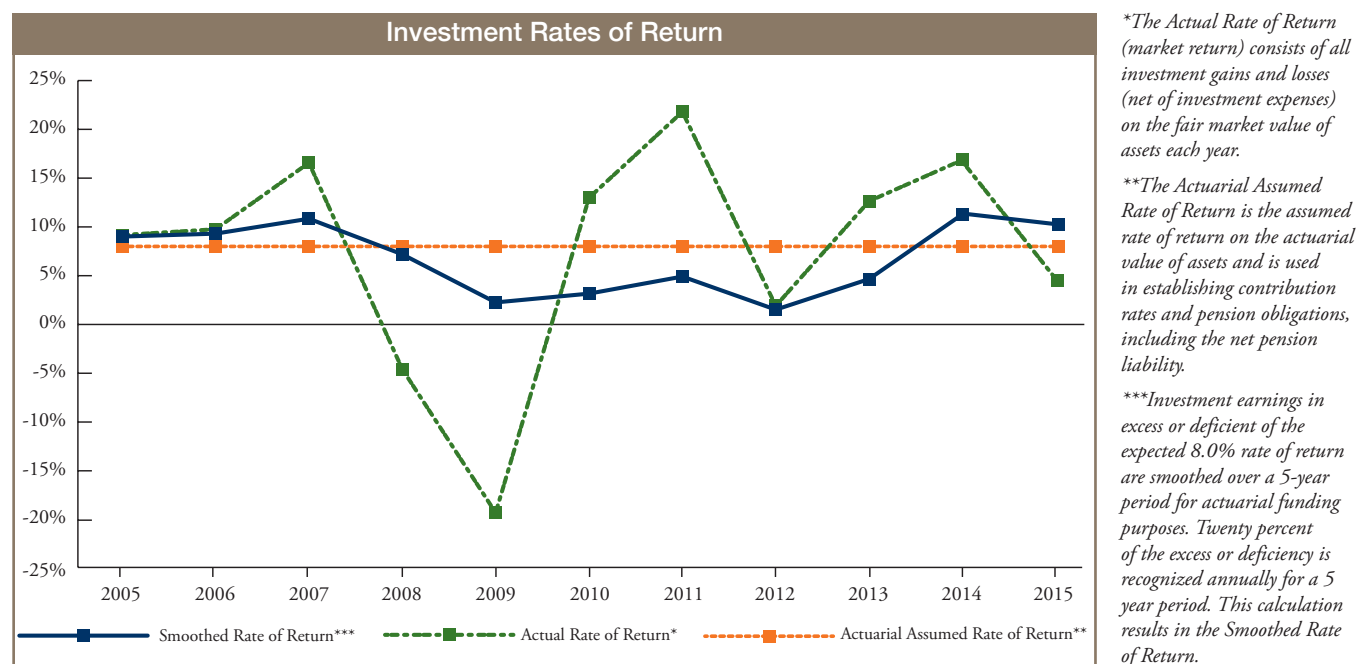
Portfolio Characteristics	Fiscal Year	3-Year	5-Year	10-Year
Annualized Total Plan Return	4.5%	11.2%	11.3%	6.6%
Annualized Policy Benchmark Return**	3.5%	10.0%	10.6%	6.1%
Annualized Strategic Benchmark Return*	3.3%	10.6%	10.8%	N/A
Excess return	1.0%	1.2%	0.7%	0.5%
Annualized Standard Deviation of Composite	4.2%	4.5%	6.7%	8.8%
Annualized Standard Deviation of Policy Benchmark	4.8%	4.9%	7.3%	9.8%
Beta to Policy Benchmark	0.87	0.91	0.92	0.88
Beta to ACWI World Index	0.43	0.49	0.49	0.52

\*As of June 30, 2015: 35.3% Russell 3000 Index, 18.7% MSCI ACWI ex-USA Index, 14.7% Barclays U.S. Intermediate Credit Index, 10.2 % Barclays U.S. Treasury: Intermediate Index, 1.1% Barclays U.S. Treasury: Long Index, 10.6% Merrill Lynch 3- Month U.S. Treasury Bill Index, 7.0% NCREIF Property Index, 1.4% Barclays U.S. TIPS 1-10 Years Index, and 1% Merrill Lynch High Yield Master II Index. The Total Plan Strategic Benchmark changes monthly based on the actual asset allocation at the end of the previous month. It was established more recently so a 10-year return is not available.

\*\*As of June 30, 2015: 39.0% Russell 3000 Index, 16.5% MSCI ACWI ex-USA Index, 14.4% Barclays U.S. Treasury: Intermediate Index, 1.6% Barclays U.S. Treasury: Long Index, 15% Barclays U.S. Intermediate Credit Index, 7.5% NCREIF Property Index, 4% Barclays U.S. TIPS 1-10 Years Index, and 2% Merrill Lynch High Yield Master II Index.



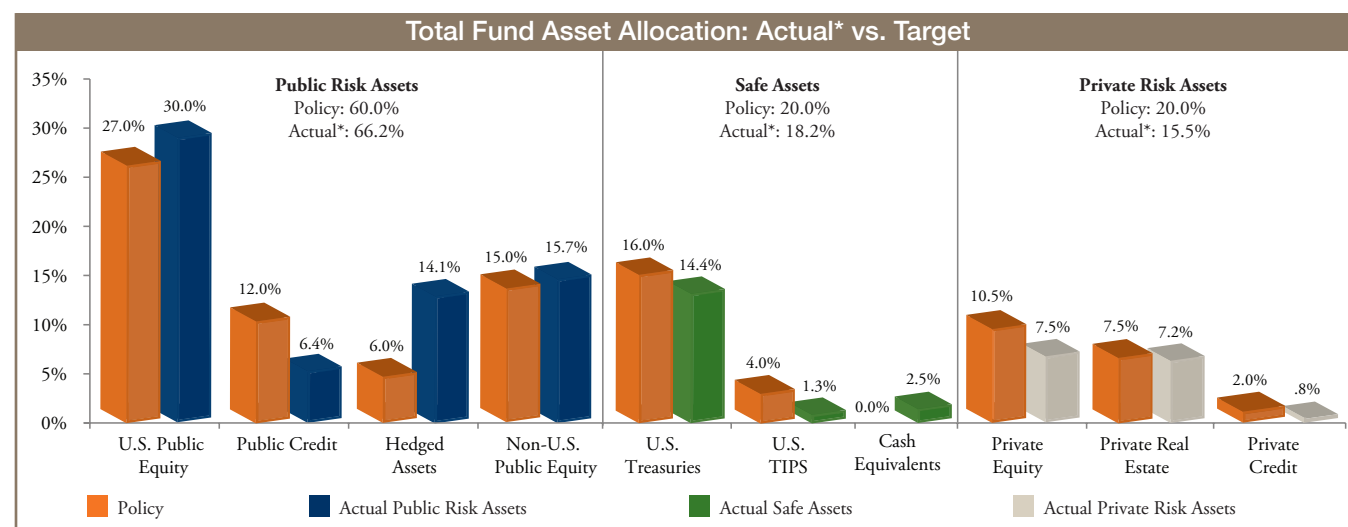
The following chart shows the relationship between market value returns, the actuarially assumed rate of return and the utilization of an actuarial asset valuation method of smoothed assets. To reduce volatility in employer and employee contribution rates, a common actuarial practice of “asset smoothing” is utilized. The application of this practice results in full recognition of returns at the actuarial assumed rate and recognizes any annual excess or deficiency relative to the assumed rate over a period of five years.



## Asset Allocation: Actual Versus Target

The Board's broad policy allocation target as of June 30, 2015 was 60% Public Risk Assets, 20% Safe Assets and 20% Private Risk Assets. Within each broad policy target, the Board has established sub-asset class targets. For example, as the chart below indicates, the target allocation to U.S. Public Equity was 27% as of June 30, 2015.

As illustrated in the chart, internal staff utilized the flexibility built into the investment policy to strategically overweight or underweight certain asset classes throughout the year. Strategic decisions within the Public Risk Assets program included an overweight to U.S. equities and emerging market stocks relative to Europe. The overweight to U.S. equities relative to non-U.S. developed equities provided meaningful returns to the Systems in fiscal year 2015.



\*Actual assets include 0.1% invested in cash and cash equivalents that is not reflected in the chart above.

## Public Risk Assets Class Summary

*As of June 30, 2015, the Public Risk assets had a market value of approximately \$25.5 billion, representing 66.2% of total assets.*

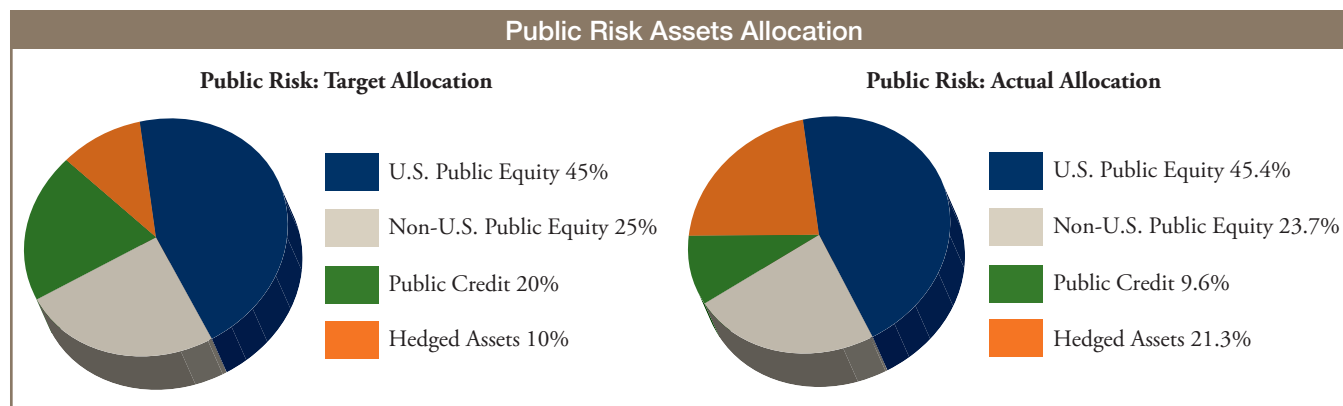
### Investment Program Description

The Board of Trustees has adopted an asset allocation policy that includes a significant allocation to Public Risk Assets. The four programs within the Public Risk Asset composite are U.S. Public Equity, Public Credit, Hedged Assets and Non-U.S. Public Equity. Each program within the Public Risk allocation is a separate multi-manager composite that is treated generally as a single portfolio. Each program serves a specific and distinct role within the overall Public Risk composite and also within the overall total plan allocation. Over time, the Public Risk composite and its sub-components serve as an effective and efficient vehicle to supply the underlying beta exposure to a portfolio of global risk assets required by the Systems' asset allocation policy, while providing the opportunity to achieve excess returns above that of an equity benchmark through the prudent combination of passive investment vehicles and a wide range of active investment strategies.

### Structure

As of June 30, 2015, 45.4% of the Systems' Public Risk assets were invested in the U.S. Public Equity program, 23.7% in the Non-U.S. Public Equity program, 9.6% in the Public Credit program and 21.3% in the Hedged Assets program. Each of these programs is discussed in more detail on the following pages.

The internal staff strategically overweighted the total plan to Public Risk assets during the year. The target allocation for Public Risk assets is 60% and the Systems' allocation at the end of the fiscal year was 66.2%. Within the Public Risk Assets composite, internal staff continued to overweight U.S. Public Equity, while underweighting Public Credit and non-U.S. developed markets.

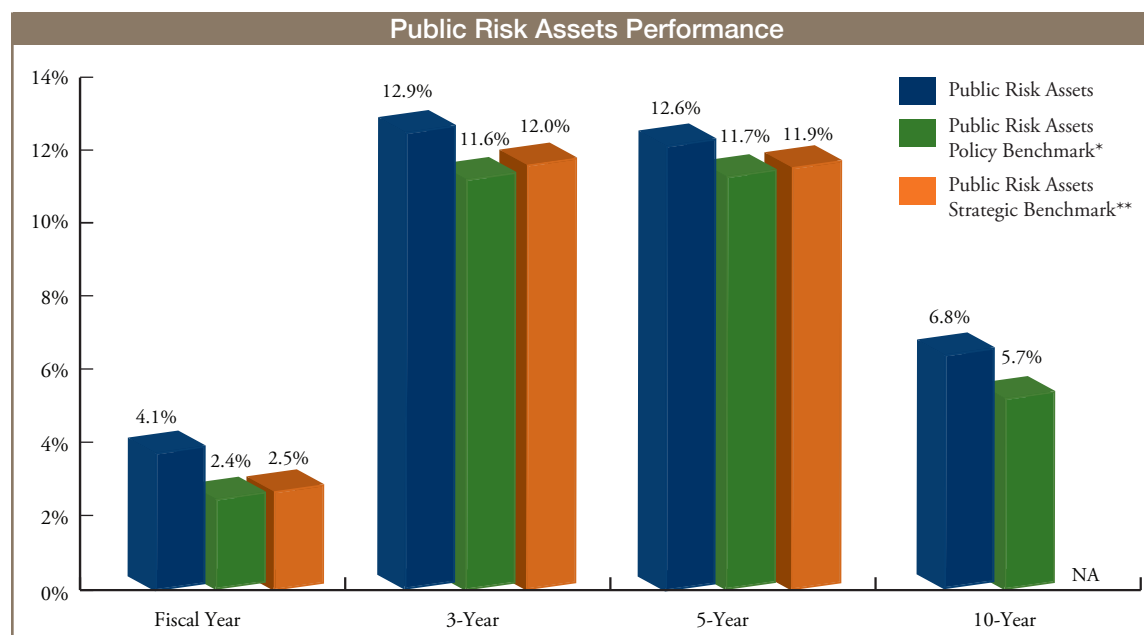


### Market Overview

The global equity markets experienced substantial volatility during the fiscal year, due to signs of weakening economic growth outside the U.S. and concerns about the timing of the Federal Reserve's tightening of monetary policy. The Eurozone markets remained fragile from a steep decline in oil prices and geopolitical uncertainty. The Russell 3000 Index (broad measure of the U.S. stock market) was up 7.3% for the year and the MSCI ACWI ex-USA Index (broad measure of the international stock markets) declined 5.3%. Bond markets experienced volatility and continued historically low interest rates, resulting in a modest gain for the Public Credit benchmark (Barclays U.S. Intermediate Credit Index) of 1.5%.

## Performance

The total return for the Systems' Public Risk portfolio was 4.1% , which outperformed the policy benchmark by 170 basis points. The strong performance relative to the benchmark can be attributed to tactical asset allocations by the internal staff and solid active management from external money managers. For the three-, five- and ten-year time periods, the Systems' significantly outperformed the benchmark as noted below.



Public Risk Assets Statistical Performance				
Portfolio Characteristics	Fiscal Year	3-Year	5-Year	10-Year
Annualized Return	4.1%	12.9%	12.6%	6.8%
Annualized Policy Benchmark Return*	2.4%	11.6%	11.7%	5.7%
Annualized Strategic Benchmark Return**	2.5%	12.0%	11.9%	n/a
Excess return	1.7%	1.3%	0.9%	1.1%
Annualized Standard Deviation of Composite	6.5%	6.6%	9.9%	13.7%
Annualized Standard Deviation of Policy Benchmark*	6.8%	6.6%	10.1%	14.1%
Beta to Policy Benchmark*	0.96	0.98	0.98	0.96
Beta to ACWI World Index	0.69	0.73	0.72	0.81

\*The Public Risk Assets Policy Benchmark is composed as follows: 47.5% Russell 3000 Index, 27.5% MSCI ACWI ex-U.S.A. Index, 25.0% Barclays U.S. Intermediate Credit Index.

\*\* The Public Risk Assets Strategic Benchmark changes monthly based on the actual asset allocation at the end of the previous month. It was established more recently so a ten-year returns is not available.

The table indicates that the Systems have taken less risk relative to the policy benchmark (as measured by standard deviation) while achieving substantially higher returns over all time periods, thereby indicating strong risk-adjusted performance. Additionally, the Systems' portfolios have a beta of less than 1.0 relative to the policy benchmark, indicating less market risk.

## U.S. Public Equity Program Summary

As of June 30, 2015, the U.S. Public Equity assets had a market value of approximately \$11.6 billion, representing 30.0% of total assets.

### Investment Program Description

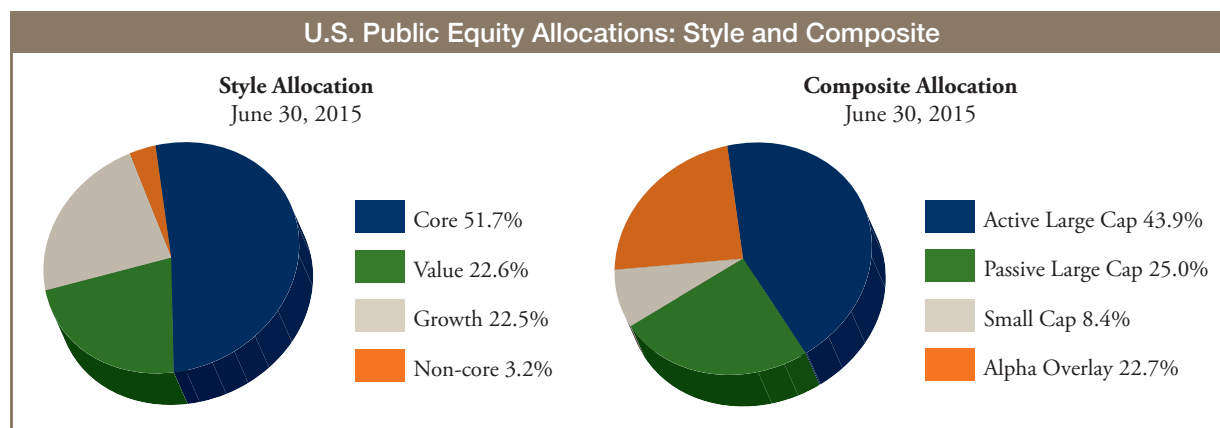
U.S. Public Equity is comprised of the Large-Cap and Small-Cap programs which seek to provide long-term capital appreciation and dividend income in excess of inflation through the investment in domestic equity securities. Returns above a purely passive investment benchmark are targeted through the use of a wide variety of active investment strategies that may employ exposure to both equity securities and other types of investments. The primary **beta** exposure is achieved through investments in passive investment vehicles (including derivatives), traditional long-only active domestic equity management, and active long/short approaches. **Alpha** (or, excess returns above a passive alternative) is expected to be achieved through traditional long-only active domestic equity management, active long/short approaches and alpha overlay strategies (described in greater detail at the end of this section).

### Structure

As of June 30, 2015, 25% of the U.S. Public Equity composite was passively managed. The remainder of the portfolio was actively managed and diversified across a broad array of capitalization ranges and investment styles, including the Small-Cap Alpha Pool (S-CAP) and the Alpha Overlay program. Both programs represent multi-manager pools of assets managed within the overall U.S. Public Equity structure. The S-CAP Program encompasses all small capitalization assets. The Alpha Overlay composite focuses on the separation of returns into alpha and beta, and encompasses alternative equity mandates including hedge fund portfolios.

Exposure to the various segments of the domestic equity market (i.e., growth-oriented, value-oriented, and core) and to the approved investment strategy types are achieved through the identification, selection and on-going management of SEC-registered investment advisors qualified to serve as fiduciaries to the Systems.

The pie charts below depict the U.S. Public Equity portfolio by presenting the current style structure of the portfolio as well as the allocation by composite and market sector.



Internal staff maintained a substantial overweight to U.S. public equities relative to Europe during the fiscal year. All investment strategies within the U.S. Public Equity program provided strong absolute and relative returns. The U.S. Large-Cap strategy returned 7.6%, Alpha Overlay returned 9.0% and the S-CAP program returned 7.2% for the fiscal year. Internal staff slightly decreased the U.S. Public Equity exposure from fiscal year 2014 levels through a disciplined process, to lower total portfolio risk as equity markets continued to move higher.



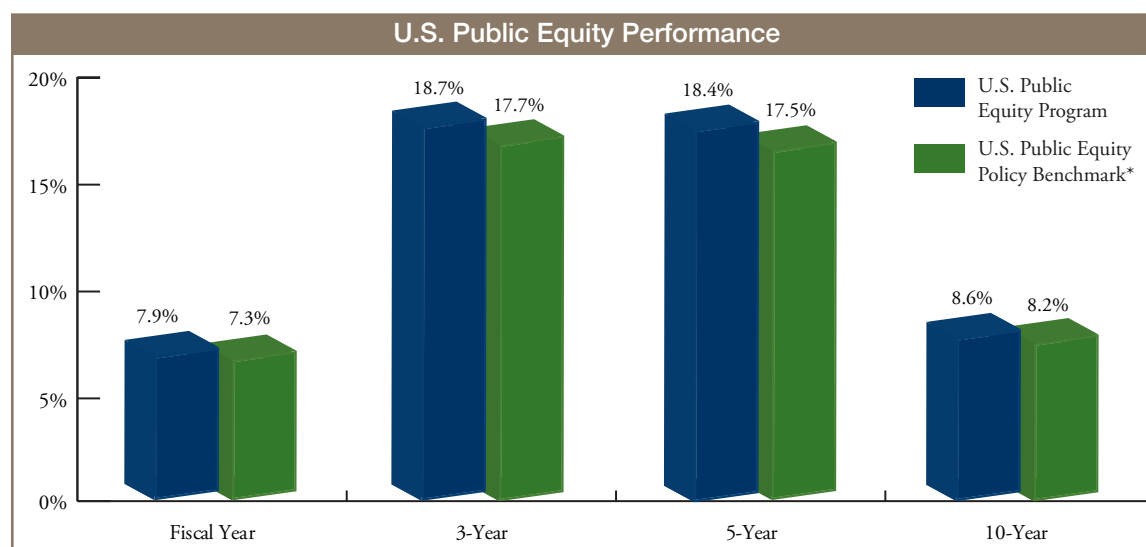
## Market Overview

The U.S. stock markets had another very strong year across both market capitalization and styles as the comprehensive measure of the U.S. stock market (Russell 3000 Index) increased 7.3%. Small-cap stocks (Russell 2000 Index) increased 6.5% for the year with large-cap growth stocks (Russell 1000 Growth Index) outperforming large-cap value stocks (Russell 1000 Value Index) with a return of 10.6% compared to 4.1%.

## Performance

The total return for the U.S. Public Equity program was 7.9% compared to the benchmark return of 7.3% for the fiscal year ended June 30, 2015. As shown in the table and graph below, the annualized U.S. equity composite return outperformed the benchmark by 60 basis points. The positive performance of the portfolio relative to the policy benchmark indicates value added by the internal staff through both strategic asset allocation decisions and manager selection decisions. Active management strategies contributed significantly to the outperformance, with the Alpha Overlay program exceeding its benchmark by 160 basis points for the year.

As indicated in the table and graph, the U.S. Public Equity portfolio outperformed the benchmark for all reported time periods. Over longer periods of time, the Systems' U.S. Public Equity portfolio is designed to deliver approximately 50-100 basis points of excess return through a combination of active and passive investment strategies.



U.S. Public Equity Statistical Performance				
Portfolio Characteristics	Fiscal Year	3-Year	5-Year	10-Year
U.S. Public Equity Return	7.9%	18.7%	18.4%	8.6%
Annualized Policy Benchmark Return*	7.3%	17.7%	17.5%	8.2%
Excess return	0.6%	1.0%	0.9%	0.4%

\*The U.S. Public Equity Policy Benchmark is the Russell 3000 Index.

## Statistics

The following table displays the statistical characteristics of the Systems' U.S. Public Equity program as of June 30, 2015 with comparisons shown to the portfolio's policy benchmark. In addition, the top ten U.S. stock holdings as of June 30, 2015 are shown in the table to the right.

U.S. Public Equity Characteristics		
Characteristics	June 30, 2015 Combined Systems*	June 30, 2015 Russell 3000 Index
Number of Securities	1,875	3,004
Dividend Yield	1.7%	1.9%
Price-to-Earnings Ratio	20.1	19.7
Avg. Market Capitalization	92.1 bil	108.9 bil
Price-to-Book Ratio	3.1	2.8

\* Includes only actively managed separate accounts

A complete list of portfolio holdings is available upon request.

U.S. Public Equity - Top 10 Holdings		
Top 10 Largest Holdings* June 30, 2015	Market Value	% of Total U.S. Public Equity
Johnson & Johnson	\$ 90,503,500	0.8%
JPMorgan Chase & Co	77,739,015	0.7%
Apple, Inc.	68,292,533	0.6%
Amdocs, Ltd.	55,967,415	0.5%
Celgene, Corp.	53,293,190	0.5%
Amazon.com, Inc.	52,680,294	0.5%
Verizon Communications, Inc.	51,418,288	0.4%
Exxon Mobil, Corp.	49,282,438	0.4%
Gilead Sciences, Inc.	48,710,783	0.4%
Kroger Co.	46,319,606	0.4%
<b>TOTAL</b>	<b>\$ 594,207,061</b>	<b>5.2%</b>

## Investment Advisors

As of June 30, 2015, the Systems had contracts with 14 external investment advisors who managed 22 portfolios that comprised 77.3% of the U.S. Public Equity portfolio. The remaining 22.7% of the portfolio was in the Alpha Overlay program described in the next section. There were no changes in manager assignments during the fiscal year.

U.S. Public Equity Investment Advisors			
Investment Advisor	Investment Style	Market Value* As of June 30, 2015	% of Total Market Value
Analytic Investors	Structured Large Cap Value	268,396,258	0.7%
Analytic Investors	U.S. Low Volatility Equity	1,112,318,985	2.9%
AQR Capital Management	Large Cap 140/40 Core	577,723,366	1.5%
Aronson + Johnson + Ortiz	Active Large Cap 130/30 Value	407,394,449	1.1%
Aronson + Johnson + Ortiz	Active Large Cap Value	612,997,539	1.6%
Blackrock	Passive Russell 1000 Index	2,486,999,677	6.4%
Blackrock	Passive Russell 1000 Growth Index	402,398,594	1.0%
Columbia Management	Active Large Cap Growth	364,721,726	0.9%
Martingale Asset Management	Active Large Cap 130/30 Growth	345,773,363	0.9%
Westwood Management	Active Large Cap Value	541,166,175	1.4%
Westwood Management	Master Limited Partnerships	286,132,551	0.7%
Zevenbergen Capital	Active All Cap Growth	565,185,719	1.5%
S-CAP: Allianz	Active Micro Cap Growth	99,773,716	0.3%
S-CAP: Allianz	Active Ultra Micro Cap Growth	35,088,293	0.1%
S-CAP: AQR Capital Management	Active Small Cap Value	161,155,242	0.4%
S-CAP: Chartwell Investment Partners	Active Small Cap Value	150,185,659	0.4%
S-CAP: Columbus Circle	Active Small Cap Growth	114,878,565	0.3%
S-CAP: Next Century Growth Investors	Active Small Cap Growth	69,945,714	0.2%
S-CAP: Next Century Growth Investors	Active Micro Cap Growth	14,121,983	0.0%
S-CAP: NISA Investment Advisors	Russell 2000 Value Exposure	35,466,018	0.1%
S-CAP: NISA Investment Advisors	Russell 2000 Exposure	111,208,580	0.3%
S-CAP: RBC Global Asset Management	Active Small Cap Core	174,417,010	0.5%
<b>Small Cap Alpha Pool (S-CAP) Subtotal</b>		<b>966,240,780</b>	<b>2.6%</b>
<b>Total</b>		<b>\$ 8,937,449,182</b>	<b>23.2%</b>

\*Includes manager cash

## Alpha Overlay Program Summary

*As of June 30, 2015, the Alpha Overlay allocation had a market value of approximately \$2.6 billion, representing 6.8% of total assets.*

### Investment Program Description

The Alpha Overlay portfolio resides within the U.S. Large-Cap Equity program. The Alpha Overlay portfolio has been constructed to assist in meeting the long-term goals established for the overall U.S. Large-Cap Equity allocation. Specifically, Alpha Overlay provides broad exposure to large-cap U.S. stocks using S&P 500 total return swaps, while the returns of a select portfolio of hedge fund strategies provides the opportunity to earn excess returns above the passive S&P 500 Index. By combining the market exposure obtained through the S&P 500 total return swaps with the diversified exposures to investment strategies focused on alpha generation, the combined portfolio is constructed and managed to produce a return stream with volatility and beta characteristics similar to the passive S&P 500 Index, while generating excess returns (or alpha) of approximately 200-250 basis points over longer periods of time.

### Structure

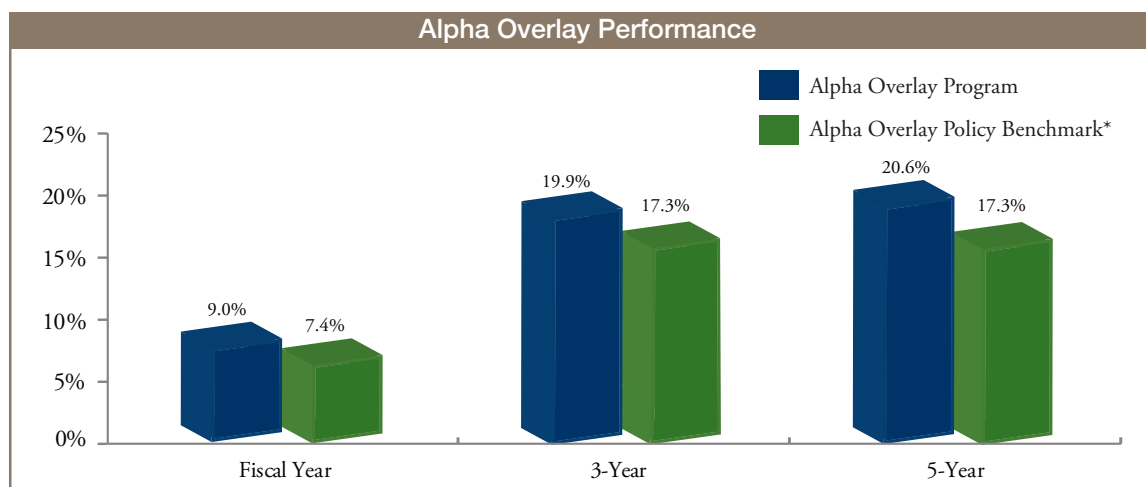
As of June 30, 2015, 27.0% of the Alpha Overlay composite assets were passively managed by NISA Investment Advisors using S&P 500 total return swaps to attain equitization. An additional 68.3% of the portfolio was actively managed across a diversified range of multi-strategy and market neutral hedge fund mandates. The remaining 4.7% of the portfolio was actively managed by Zevenbergen Capital in a long-only mandate. The chart below displays the specific investment advisor exposure within the composite as of June 30, 2015.

Alpha Overlay Investment Advisors			
Investment Advisor	Investment Style	Market Value* As of June 30, 2015	% of Total Market Value
Algert Coldiron Investors	Multi-Strategy Market Neutral	\$ 702,841	0.0%
Analytic Investors	Japan Market Neutral	34,235,029	0.1%
AQR Absolute Return Fund	Multi-Strategy	137,682,734	0.4%
Bridgewater Pure Alpha II	Asset Allocation/Global Macro	270,066,737	0.7%
Bridgewater Pure Alpha Major Markets	Asset Allocation/Global Macro	107,793,813	0.3%
Carlson Black Diamond	Multi-Strategy	202,980,929	0.5%
Davidson Kempner Institutional Partners	Multi-Strategy	252,807,952	0.6%
NISA Investment Advisors	S&P 500 Exposure	711,070,701	1.8%
Och-Ziff Domestic Partners	Multi-Strategy	186,586,206	0.5%
Pershing Square	Equity Long/short	67,431,992	0.2%
Renaissance Institutional Equities Fund	Equity Long/short	188,589,736	0.5%
Stark Investments Limited Partners	Equity Long/short	2,293,117	0.0%
UBS O'Connor Multi-Strategy Alpha	Multi-Strategy	234,118,321	0.6%
York Capital	Multi-Strategy	110,479,258	0.3%
Zevenbergen Capital	Active All-Cap Growth	123,291,511	0.3%
<b>Total</b>		<b>\$ 2,630,130,877</b>	<b>6.8%</b>

\* Includes manager cash

## Performance

The total return for the Alpha Overlay program was 9.0% compared to the benchmark return of 7.4% for the fiscal year ended June 30, 2015. As shown in the table and graph below, the Alpha Overlay composite returns substantially exceeded the benchmark over all time periods while maintaining a risk profile (standard deviation and beta) lower than the benchmark over all time periods.



Alpha Overlay Statistical Performance			
Portfolio Characteristics	Fiscal Year	3-Year	5-Year
Annualized Alpha Overlay Return	9.0%	19.9%	20.6%
Annualized Policy Benchmark Return*	7.4%	17.3%	17.3%
Excess return	1.6%	2.6%	3.3%
Annualized Standard Deviation of Composite	8.3%	8.4%	11.9%
Annualized Standard Deviation of Policy Benchmark*	9.3%	8.6%	12.0%
Beta to Benchmark*	0.85	0.96	0.97

\*The Alpha Overlay Policy Benchmark is the S&P 500 Index. Ten-year returns are not available due to the age of the asset class.



## Non-U.S. Public Equity Program Summary

*As of June 30, 2015, the Non-U.S. Public Equity assets had a market value of approximately \$6.0 billion, representing 15.7% of total assets.*

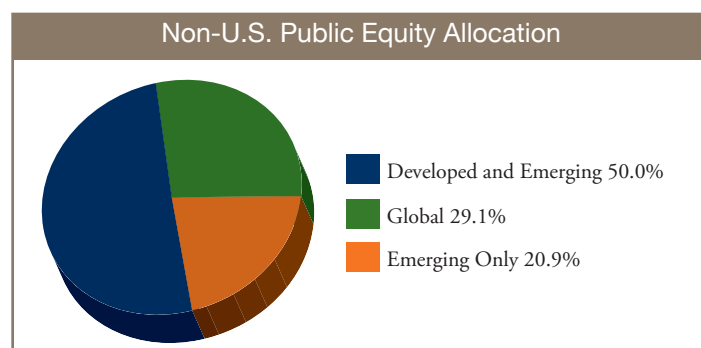
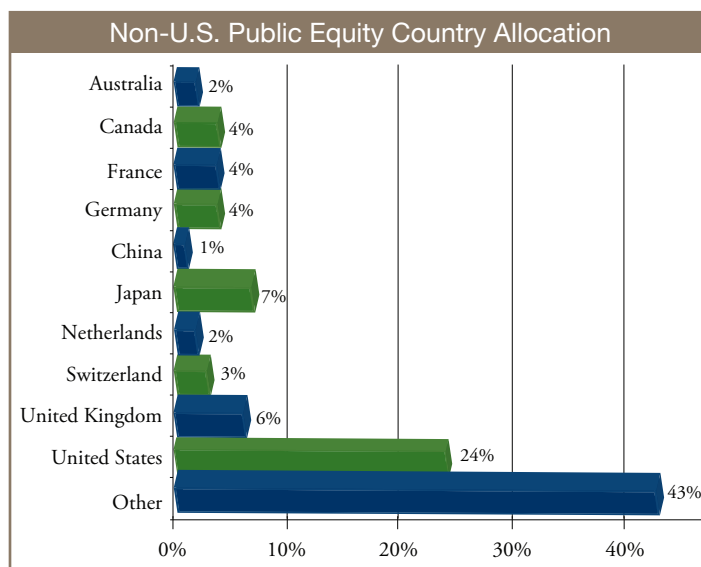
### Investment Program Description

The Non-U.S. Public Equity program provides long-term capital appreciation and dividend income in excess of inflation through exposure to public equity securities on a global basis. Specific investment strategies approved for the Non-U.S. Public Equity program include passive investment vehicles, traditional long-only active equity management and active long/short approaches. Exposure to the various segments of the global equity market (i.e., U.S., developed non-U.S., emerging, growth-oriented, value-oriented, and core) and to the approved investment strategy types are achieved through the identification, selection and on-going management of SEC-registered investment advisors qualified to serve as fiduciaries to the Systems. The Non-U.S. portfolios provide an element of diversification relative to the domestic equity portfolios. Currency is another aspect of international investing that can impact the performance and volatility of the asset class over the short-term, however, over the long-term the effect from currency is expected to be neutral.

### Structure

As of June 30, 2015, 18.4% of the Non-U.S. Public Equity composite was passively managed. The remainder of the portfolio was actively managed and diversified across capitalization ranges, styles and a number of developed and emerging market countries.

The bar graph displays the specific country exposure within the composite while the pie chart indicates broader exposure by investment mandate.



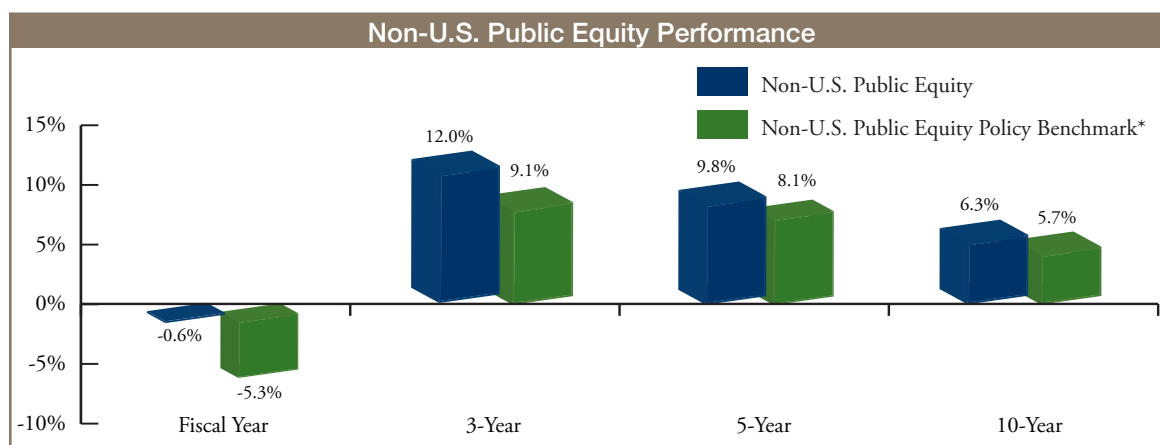
### Market Overview

Global markets substantially decreased in fiscal year 2015. Divergent monetary policies from the major central banks throughout the world and the downturn in the Chinese economy negatively impacted market returns. The broad measure for developed international markets (MSCI EAFE Index) decreased 4.2%, emerging markets (MSCI EM Index) decreased 5.1% and global stocks (MSCI World) increased a modest 1.4%.

## Performance

As shown in the table and graph below, the Systems' Non-U.S. Public Equity composite returns substantially outperformed the benchmark during all time periods. The total return for the Non-U.S. Public Equity program was -0.6% compared to the benchmark return of -5.3% for the fiscal year ended June 30, 2015. The absolute return for the fiscal year is slightly negative, but on a relative basis the program outperformed the benchmark by 470 basis points. The positive performance of the portfolio relative to the policy benchmark indicates substantial value added by the internal staff through both strategic asset allocation decisions and manager selection decisions.

Over long periods of time, the Systems' Non-U.S. Public Equity portfolio is designed to deliver approximately 100-150 basis points of excess returns through a combination of active and passive investment strategies.



Non-U.S. Public Equity Statistical Performance				
Portfolio Characteristics	Fiscal Year	3-Year	5-Year	10-Year
Annualized Non-U.S. Public Equity Return	-0.6%	12.0%	9.8%	6.3%
Annualized Policy Benchmark Return*	-5.3%	9.1%	8.1%	5.7%
Excess return	4.7%	2.9%	1.7%	0.6%

\*The Non-U.S. Public Equity Benchmark is the MSCI ACWI ex-USA Index.

## Statistics

The following table displays the top ten global stock holdings as of June 30, 2015.

Non-U.S. Public Equity - Top 10 Holdings		
Top 10 Largest Holdings* June 30, 2015	Market Value	% of Total Non-U.S. Public Equity
Roche Holdings AG	\$ 40,746,460	0.7%
Bayer AG	39,424,441	0.7%
Nestle SA	37,603,542	0.6%
ING	30,759,037	0.5%
Compass Group	28,298,768	0.5%
Hoya Corp.	26,863,885	0.4%
WPP Plc	26,351,644	0.4%
AIA Group Ltd.	26,264,797	0.4%
Honda Motor Co.	25,876,901	0.4%
HSBC Holdings	25,009,441	0.4%
<b>Total</b>	<b>\$ 307,198,916</b>	<b>5.0%</b>

\* Includes only actively managed separate accounts

A complete list of portfolio holdings is available upon request.

## Investment Advisors

As of June 30, 2015, the Systems had contracts with 11 external investment advisors who managed 14 portfolios within the Non-U.S. Public Equity portfolio. In fiscal year 2015, one new investment advisor was added: an emerging market assignment by Coronation Asset Management Limited.

Non-U.S. Public Equity Investment Advisors			
Investment Advisor	Investment Style	Market Value* As of June 30, 2015	% of Total Market Value
Acadian Asset Management	Active Emerging Markets	\$ 229,384,701	0.6%
AllianceBernstein Institutional Mgmt.	Active Intl Value	351,750,384	0.9%
Analytic Investors	Active Global	623,496,113	1.6%
AQR Capital Management	Active Intl Core	655,859,513	1.7%
Arrowstreet Capital	Active Emerging Markets	215,781,300	0.6%
Arrowstreet Capital	Active Global	538,821,824	1.4%
Arrowstreet Capital	Global Long/Short	595,723,949	1.6%
Blackrock	Passive Intl Core	780,263,819	2.0%
Coronation Asset Management Limited	Active Emerging Markets	202,449,921	0.5%
MFS Investment Management	Active Intl Core	774,748,903	2.0%
MFS Investment Management	Active Intl Concentrated Core	125,894,203	0.3%
Neon Capital Management	Active Emerging Markets	87,552,124	0.2%
NISA Investment Advisors	ACWI Swaps	332,722,549	0.9%
Rock Creek Group	Active Emerging Markets	525,586,205	1.4%
Transition accounts	Transition accounts	604,843	0.0%
<b>Total</b>		<b>\$ 6,040,640,351</b>	<b>15.7%</b>

\* Includes manager cash.

## Public Credit Program Summary

*As of June 30, 2015, the Public Credit assets had a market value of approximately \$2.5 billion, representing 6.4% of total assets.*

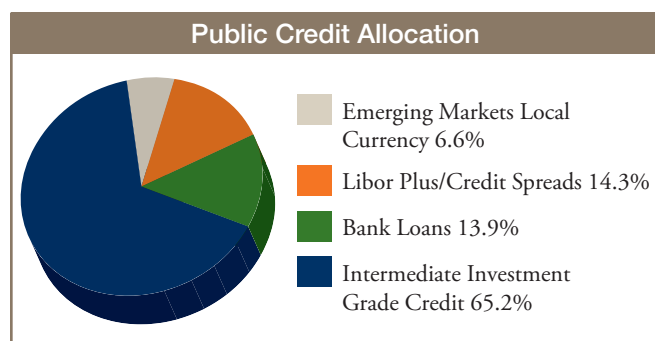
### Investment Program Description

The Public Credit Program is designed to provide a source of income and capital appreciation for the Systems while creating substantial diversification to the total plan with a low correlation to other asset classes. Most securities in this program exhibit high liquidity. Specific investments can include investment grade corporate securities, below investment grade debt instruments, distressed debt securities, convertible bonds, bank loans, agencies, mortgage-backed securities, asset-backed securities, and interest rate sensitive securities (including those issued or guaranteed by the United States government or its agencies). Investments in this program may include debt of both U.S. and non-U.S. issuers.

The performance objective for the Public Credit program is to exceed the returns of the investment grade credit markets through the use of a wide variety of active management approaches while incurring a level of risk that is generally consistent with the policy benchmark.

### Structure

As of June 30, 2015, the Public Credit composite was actively managed and diversified across high quality corporate bonds, bank loans and non-dollar currencies of both developed and emerging countries. The pie chart below presents the strategy allocation of the Systems' Public Credit assets as of June 30, 2015.



The target allocation for the Public Credit program is 12.0% and the Systems' allocation at the end of the fiscal year was 6.4%. Within the Public Credit composite, the Systems' internal staff has built a diversified portfolio with a base of high quality, shorter duration corporate bonds.

## Market Overview

Interest rates experienced significant volatility during fiscal year 2015, with the intermediate and long ends of the treasury yield curve hitting all time lows. The yield on the 10-year Treasury decreased to 2.35% on June 30, 2015 from 2.53% on June 30, 2014.

Investment grade credit corporate bonds (Barclays U.S. Intermediate Credit Index) increased 1.5% for the year while a broader measure of the U.S. bond market (Barclays U.S. Aggregate Index) increased 1.9%. High yield, or lower quality, bonds (Merrill Lynch High Yield Master II Index) decreased 0.5% for the year and global bonds (Barclays U.S. Global Bond Index) decreased 13.2%.

### Statistics

The following table displays the top ten Public Credit holdings as of June 30, 2015.

Public Credit - Top 10 Holdings		
Top 10 Largest Holdings* June 30, 2015	Market Value	% of Total Public Credit
PIMCO Developing Local Markets Fund	\$ 161,573,119	6.5%
Bank of America Corp., 6.4%, 8/28/2017	52,749,728	2.1%
AT&T Inc., 0.00%, 11/27/2022	47,927,250	1.9%
SunTrust Banks, Inc. 2.35%, 11/1/2018	35,221,900	1.4%
Sumitomo Mitsui Banking, 1.35%, 7/11/2017	34,989,850	1.4%
MUFG Union Bank NA, 2.625%, 06/26/2018	34,751,988	1.4%
ACE INA, Holdings, Inc. 5.7%, 2/15/2017	32,624,565	1.3%
Goldman Sachs Group, 6.25%, 9/1/2017	32,645,743	1.3%
Metropolitan Edison Co., 4.0%, 4/15/2025	32,506,244	1.3%
Verizon Communications, Inc., 4.27%, 1/15/2036	32,114,594	1.3%
<b>Total</b>	<b>\$ 497,104,981</b>	<b>19.9%</b>

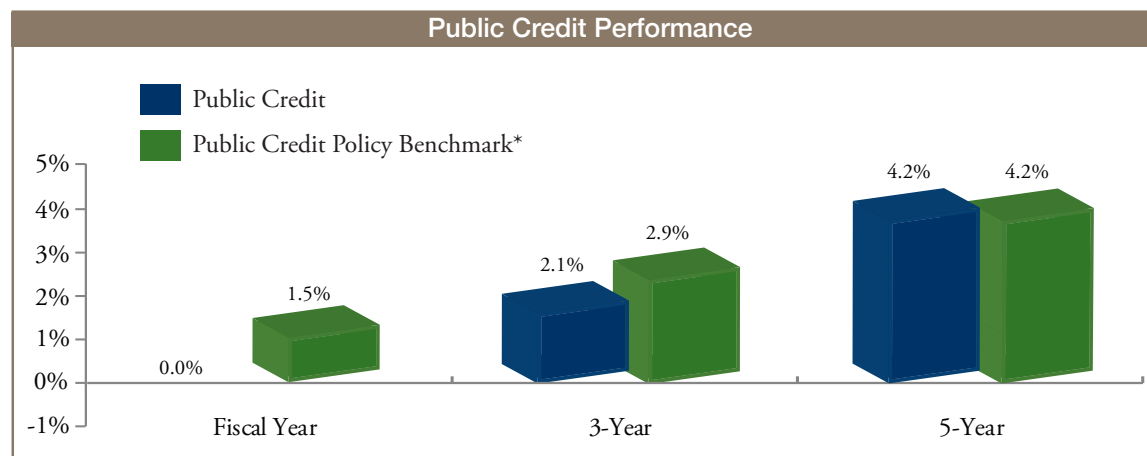
\* Includes only actively managed separate accounts.

A complete list of portfolio holdings is available upon request.



## Performance

The total return for the Public Credit program was 0.0% compared to the benchmark return of 1.5% for the fiscal year ended June 30, 2015. As indicated in the table and graph, the Public Credit portfolio underperformed the policy benchmark in fiscal year 2015. The underperformance was partially due to an allocation to emerging market bonds and currencies which declined significantly during the year. Over long periods of time, the Systems' Public Credit portfolio is designed to deliver approximately 30-70 basis points of excess return through a combination of active and passive strategies.



Public Credit Statistical Performance			
Portfolio Characteristics	Fiscal Year	3-Year	5-Year
Annualized Public Credit Return	0.0%	2.1%	4.2%
Annualized Policy Benchmark Return*	1.5%	2.9%	4.2%
Excess return	-1.5%	-0.8%	0.0%

\*The Public Credit Policy Benchmark is the Barclays U.S. Intermediate Credit Index.

The Public Credit Program was established in December 2008, so ten-year returns are not available.

## Investment Advisors

As of June 30, 2015, the Systems had contracts with three external investment advisors who managed four portfolios in the Public Credit portfolio. The Systems repositioned the portfolio during the fiscal year by terminating one portfolio.

Public Credit Investment Advisors			
Investment Advisor	Investment Style	Market Value* As of June 30, 2015	% of Total Market Value
NISA Investment Advisors	Corporate Credit	1,610,870,430	4.2%
Oaktree Bank Loans	Senior Bank Loans	344,076,253	0.9%
Pacific Investment Management Co.	LIBOR Plus	352,481,363	0.9%
Pacific Investment Management Co.	Developing Local Markets	161,573,119	0.4%
<b>Total</b>		<b>\$ 2,469,001,165</b>	<b>6.4%</b>

\*Includes manager cash

## Hedged Assets Program Summary

*As of June 30, 2015, the Hedged Assets portfolio had a market value of approximately \$5.4 billion, representing 14.1% of total assets.*

### Investment Program Description

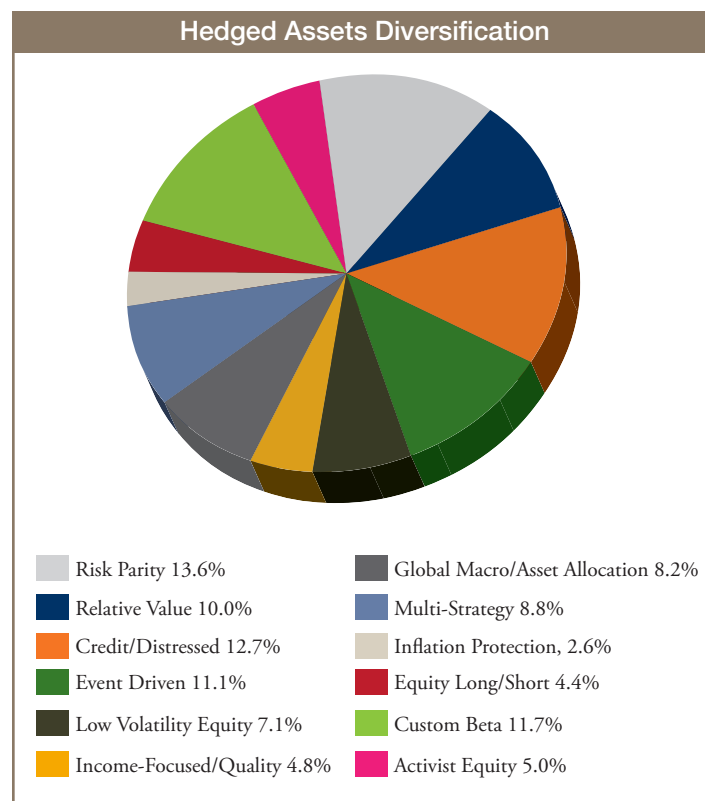
The Hedged Assets program's objective is to provide diversification to the total portfolio and reduce volatility within the Public Risk composite. The purpose of this program is to enhance the overall risk/return profile of the Public Risk composite through the inclusion of specialized investment strategies that typically generate returns in a different fashion (i.e., absent a high correlation to equities or bonds). These strategies may utilize leverage as allowed within their governing documents. The returns from these strategies have historically had a low-to-moderate correlation with the traditional equity markets, thus providing diversification benefits in addition to portfolio return enhancement. These strategies seek to control risks and maintain a focus on absolute returns. The inherent nature of these vehicles to serve as a "hedge" provides for the expectation that the Program will lag the equity market during times when equities are performing above the long-term averages. However, when equities are performing below the long-term averages, the program would be expected to outperform the equity market. In addition, managers within this asset class have historically possessed significantly lower volatility relative to traditional equity managers.

### Structure

The Systems have retained Albourne America, LLC (Albourne) as its hedge fund Consultant. Albourne is an independent global advisory with a significant focus on hedge funds. The Systems utilize direct investments into hedge funds as opposed to incorporating fund-of-funds. The Systems' internal staff believe the benefits of direct investments, including lower fees, customized portfolio exposures, direct access to manager knowledge, and higher levels of transparency, outweighed the benefit of quicker implementation offered by fund-of-funds.

As the chart below indicates, the Hedged Assets program is diversified into Multi-Strategy Managers, Asset Allocation/Global Macro, Diversified Beta/Inflation, Credit/Distressed Specialists and Equity Long/Short. Multi-Strategy managers include those focused on event-driven, credit, and relative value. The Systems manage the Hedged Assets portfolio to a blended benchmark of 25% Russell 3000 Index, 25% MSCI ACWI Ex-USA Index, and 50% Barclays U.S. Intermediate Credit Index.

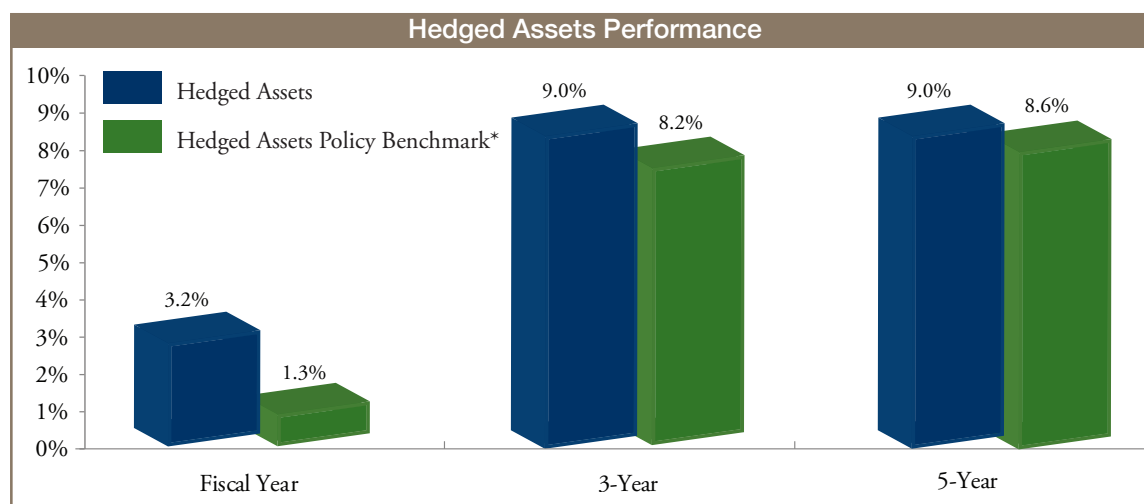
Internal staff's decision to continue a substantial overweight to Hedged Assets relative to Safe Assets and Public Credit throughout fiscal year 2015 added value to the Systems.



## Performance

The total annualized return on the Systems' Hedged Assets portfolios was 3.2%, compared to the benchmark return of 1.3% for the fiscal year ended June 30, 2015. The one-year return outperformed the policy benchmark by 190 basis points, providing strong relative returns.

Over the past five years, the Hedged Assets Program has outperformed its benchmark by 40 bps on an annualized basis. The outperformance relative to the policy benchmark is particularly significant given the strong performance of equities over the past five years. The Russell 3000 Index was up an annualized 17.5% over the past five years and the MSCI ACWI Index was up an annualized 13.1%. As discussed previously, the hedging characteristics of the Hedged Assets Program provide for the expectation that its performance will lag equity markets and/or its policy benchmark during periods of higher-than-normal equity returns. The Hedged Assets Program is expected to outperform in more normal and down markets. As the table indicates, the longer term performance was accomplished by assuming less than one-half of the volatility of the world stock index and achieving a beta of approximately .40 to the index, signifying that the Systems' portfolios move up or down less than half as much as the world stock index.



Hedged Assets Statistical Performance			
Portfolio Characteristics	Fiscal Year	3-Year	5-Year
Annualized Hedged Assets Return	3.2%	9.0%	9.0%
Annualized Policy Benchmark Return*	1.3%	8.2%	8.6%
Annualized S&P 500 Return	7.4%	17.3%	17.3%
Annualized MSCI ACWI Index	0.7%	13.0%	11.9%
Annualized Standard Deviation of Composite	4.4%	4.9%	6.2%
Annualized Standard Deviation of Policy Benchmark	4.9%	5.0%	7.4%
Annualized Standard Deviation of S&P 500	9.3%	8.6%	12.0%
Annualized Standard Deviation to MSCI ACWI Index	9.0%	8.7%	13.6%
Beta to Policy Benchmark	0.81	0.90	0.77
Beta to S&P 500	0.30	0.41	0.42
Beta to MSCI ACWI Index	0.38	0.47	0.40

\*The Hedged Assets Policy Benchmark is composed as follows: 50% Barclays U.S. Intermediate Credit Index, 25% MSCI ACWI ex-USA, 25% Russell 3000 Index.

## Investment Advisors

As of June 30, 2015, the Systems had contracts with 16 external investment advisors who managed 24 portfolios. There were no changes in manager assignments during the fiscal year.

Hedged Assets Investment Advisors			
Investment Advisor	Investment Style	Market Value* As of June 30, 2015	% of Total Market Value
AQR Absolute Return Fund	Multi-Strategy	\$ 137,682,734	0.4%
AQR Diversified Beta Fund	Diversified Beta/Inflation	364,444,763	0.9%
AQR Real Asset Fund	Multi-Strategy	4,702,766	0.1%
Bridgewater All Weather	Equity Long/short	371,825,315	1.0%
Bridgewater Inflation Pool	Diversified Beta/Inflation	97,040,885	0.3%
Bridgewater Pure Alpha II	Asset Allocation/Global Macro	195,565,583	0.5%
Bridgewater Pure Alpha Major Markets	Asset Allocation/Global Macro	251,518,880	0.7%
Carlson Black Diamond	Multi-Strategy	248,087,802	0.6%
Davidson Kempner Institutional Partners	Multi-Strategy	206,842,870	0.5%
Davidson Kempner Distressed Opportunities Fund	Distressed Debt/Credit	225,723,546	0.6%
GoldenTree Partners	Distressed Debt/Credit	462,166,587	1.2%
Indus Asia Pacific Fund	Equity Long/short	92,360,437	0.2%
Maverick Fund USA	Equity Long/short	147,137,795	0.4%
NISA Investment Advisors	Diversified Beta/Inflation	635,736,808	1.6%
Och-Ziff Domestic Partners	Multi-Strategy	228,049,807	0.6%
Och-Ziff Europe	Multi-Strategy	52,107,607	0.1%
Och-Ziff Asia	Multi-Strategy	194,253,152	0.5%
Owl Creek Overseas Fund	Multi-Strategy	134,779,424	0.3%
Pershing Square	Equity Long/short	269,727,969	0.7%
Renaissance Institutional Equities Fund	Equity Long/short	382,894,313	1.0%
Stark Investments Limited Partners	Equity Long/short	4,258,645	0.0%
UBS O'Connor Multi-Strategy Alpha	Multi-Strategy	156,078,880	0.4%
Westwood Management	Diversified Beta/Inflation	259,756,652	0.7%
York Capital Management	Multi-Strategy	257,784,990	0.7%
<b>Total</b>		<b>\$ 5,420,528,210</b>	<b>14.1%</b>

\*Includes manager cash



## Safe Assets Class Summary

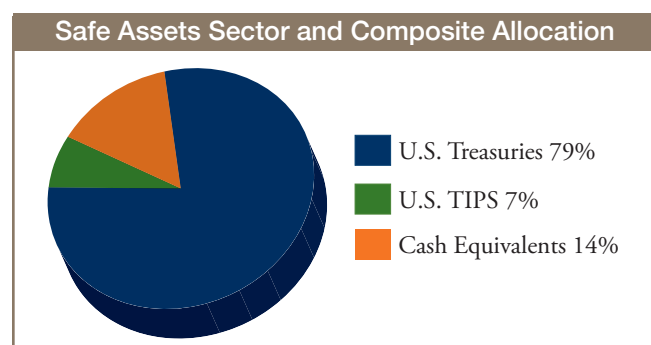
*As of June 30, 2015, the Safe Assets had a market value of approximately \$7.0 billion, representing 18.2% of total assets.*

### Investment Program Description

The Safe Assets program is intended to act as a source of safety and income for the Systems. The program is designed to create substantial diversification to the total portfolio and reduce volatility through low correlation to other asset classes. Specifically, the Safe Assets portfolio should provide asset protection at the total fund level in periods of economic stress. The policy benchmark for the Safe Assets allocation is 80% Barclays U.S. Treasury Blended Index (a combination of the Barclays U.S. Treasury Intermediate Index and the Barclays U.S. Treasury Long Index) and 20% Barclays U.S. TIPS 1-10 Year Index.

### Structure

As of June 30, 2015, the Systems' entire Safe Assets program was managed by NISA Investment Advisors. The assets held within the program exhibit high liquidity and safety. The pie chart below depicts the Safe Assets Program by showing the sector and composite allocations as of June 30, 2015.



Internal staff continues to maintain a slight underweight to Safe Assets due in part to historically low yields and due to better expected risk/adjusted returns going forward within the Public Risk program. The Systems' allocation to Safe Assets was 18.2% as of June, 30, 2015, as compared to the benchmark weight of 20%. The Systems' allocation to Safe Assets increased from the prior year with the establishment of the Cash Equivalents portfolio late in fiscal year 2014. The cash balances provide the Systems with flexibility to deploy cash opportunistically as the market environment dictates.

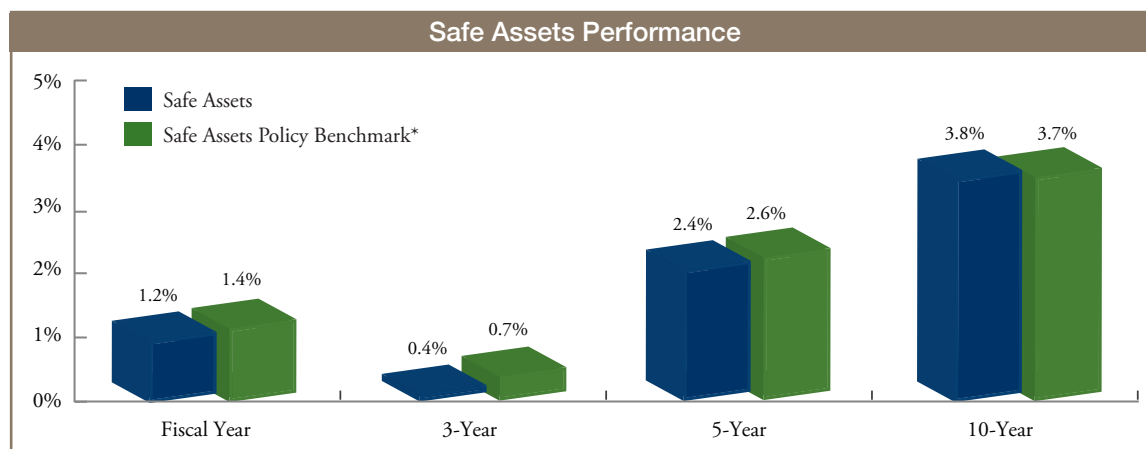
### Market Overview

Interest rates experienced significant volatility during fiscal year 2015, with the intermediate and long ends of the treasury yield curve hitting all time lows. The yield on the 10-year Treasury decreased to 2.35% on June 30, 2015 from 2.53% on June 30, 2014.

### Performance

The total return for Safe Assets portfolio was 1.2% for the fiscal year ended June 30, 2015. The portfolio underperformed the benchmark for the year by 20 basis points. For the three- and five -year time periods, the Systems' modestly underperformed the Safe Assets benchmark. The Systems' performance exceeded the benchmark over the longer time period of 10 years.

The absolute return of the Safe Assets portfolio is relatively modest over longer time periods. However, the Safe Assets portfolio continues to provide asset protection at the total fund level in periods of economic stress and ultimate liquidity to the Systems. An allocation to Safe Assets allows the Systems to accept market risk in other portions of the total fund portfolio.



Safe Assets Statistical Performance				
Portfolio Characteristics	Fiscal Year	3-Year	5-Year	10-Year
Annualized Safe Assets Return	1.2%	0.4%	2.4%	3.8%
Annualized Policy Benchmark Return*	1.4%	0.7%	2.6%	3.7%
Excess return	-0.2%	1.6%	-0.2%	0.1%
Annualized Standard Deviation of Composite	3.2%	2.7%	2.9%	3.4%
Annualized Standard Deviation of Policy Benchmark*	3.3%	2.8%	3.0%	3.4%
Beta to Policy Benchmark*	0.93	0.92	0.95	0.96
Beta to ACWI World Index	-0.09	-0.01	-0.06	-0.02

\*The Safe Assets Policy Benchmark is composed as follows: 72.0% Barclays U.S. Treasury: Intermediate Index, 20% Barclays U.S. TIPS 1-10 Yrs. Index and 8.0% Barclays U.S. Treasury: Long Index.

The Systems have taken less risk compared to the Policy benchmark more recently with the addition of the cash equivalents portfolio. Additionally, the Systems' portfolios have a beta slightly less than 1.0 relative to the policy benchmark over all time periods, indicating less market volatility. Most importantly, the Safe Asset portfolio exhibits a beta of approximately zero relative to the world stock index (MSCI ACWI Index), indicating no correlation to risk assets. These statistics support one of the primary objectives of Safe Assets: diversification from other risk assets in the total fund.

## Statistics

The following table displays the statistical characteristics of the Systems' Safe Assets Program as of June 30, 2015 with comparisons shown to the Barclays U.S. Treasury: Intermediate Index. Additionally, the top ten Safe Asset holdings as of June 30, 2015 are shown in the table below the characteristics.

Safe Assets Characteristics		
Characteristics	June 30, 2015 Combined Systems	June 30, 2015 Barclays U.S. Treasury: Intermediate Index
Number of Securities	100	209
Average Coupon	1.5%	1.8%
Yield to Maturity	1.0%	1.2%
Average Maturity (Years)	6.8	4.0
Duration (Years)	4.8	3.8

Safe Assets - Top 10 Holdings		
Top 10 Largest Holdings* June 30, 2015	Market Value	% of Total Safe Assets
United States Treasury Note, 0.50%, 08/31/2016	\$ 567,704,336	8.1%
United States Treasury Note, 0.375%, 04/30/16	383,448,226	5.5%
United States Treasury Note, 1.00%, 09/15/17	260,250,604	3.7%
United States Treasury Note, 1.25%, 10/31/15	235,831,510	3.4%
United States Treasury Note, 3.50%, 5/15/20	212,045,473	3.0%
United States Treasury Note, 2.375%, 08/15/24	211,654,703	3.0%
United States Treasury Bill, 0.00%, 8/06/15	204,670,000	2.9%
United States Treasury Note, 0.250%, 02/29/16	195,427,426	2.8%
United States Treasury Note, 2.50%, 02/15/45	182,968,632	2.6%
United States Treasury Note, 2.875%, 05/15/43	170,124,204	2.4%
<b>Total</b>	<b>\$ 2,624,125,114</b>	<b>37.4%</b>

\*Includes only actively managed separate accounts.

A complete list of portfolio holdings is available upon request.

## Investment Advisors

NISA Investment Advisors managed the Safe Assets program as of June 30, 2015. The Systems added the Cash Equivalents portfolio at the end of fiscal year 2014. The following table lists the firm's management by investment style.

Safe Assets Investment Advisor			
Investment Advisor	Investment Style	Market Value* As of June 30, 2015	% of Total Market Value
NISA Investment Advisors	U.S. Treasuries	\$ 5,537,641,283	14.4%
NISA Investment Advisors	Cash Equivalents	957,142,426	2.5%
NISA Investment Advisors	U.S. TIPS	516,740,787	1.3%
<b>Total</b>		<b>\$ 7,011,524,496</b>	<b>18.2%</b>

\*Includes manager cash

## Private Risk Assets Class Summary

*As of June 30, 2015, the Private Risk assets had a market value of approximately \$5.7 billion, representing 15.0% of total assets.*

### Investment Program Description

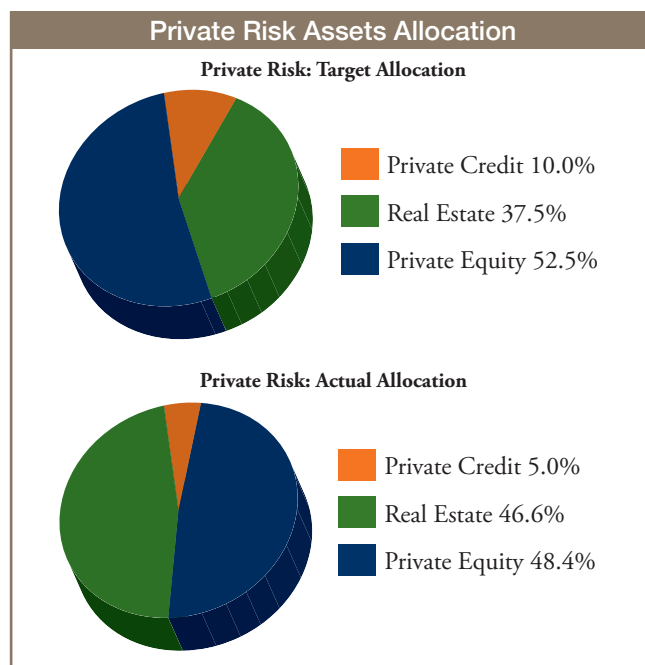
The allocation to Private Risk investments is viewed as a separate asset class for inclusion in the Systems' overall investment portfolios. The process of building the Systems' Private Risk program and fully funding the target allocation is expected to occur over a period of several years. Additional new investments will be necessary beyond the initial start-up period in order to maintain the long-term 20% target allocation. The three programs within the Private Risk Assets composite are Private Equity, Private Real Estate and Private Credit. Each program within the Private Risk allocation is a separate multi-manager composite that is treated generally as a single portfolio. Each program serves a specific and distinct role within the overall Private Risk Composite and also within the overall Total Plan allocation. Over time, the Private Risk Composite serves as a long-term vehicle to supply the underlying beta exposure to a portfolio of private assets.

Investments in Private Risk Assets differ substantially from the Systems' public markets asset classes (Public Risk Assets and Safe Assets) in part because they are typically very long-term in nature, not publicly traded, relatively illiquid, and offer the potential for substantially higher returns (along with a commensurate level of risk). The illiquid nature of Private Risk Assets can result from the form of the asset or security itself, or it can be a function of the investment structure being utilized (e.g., a limited partnership).

Due to the fact that Private Risk Assets are not publicly traded, pricing and performance measurements prior to realization of gains are less reliable than in the traditional publicly traded asset classes. The Systems continually monitor the valuation policies and procedures utilized for such investments.

### Structure

As of June 30, 2015, 48.4% of Private Risk assets were invested in the Private Equity program, 46.6% in the Private Real Estate program, and 5.0% in the Private Credit program. Each of these programs is discussed in more detail on the following pages.

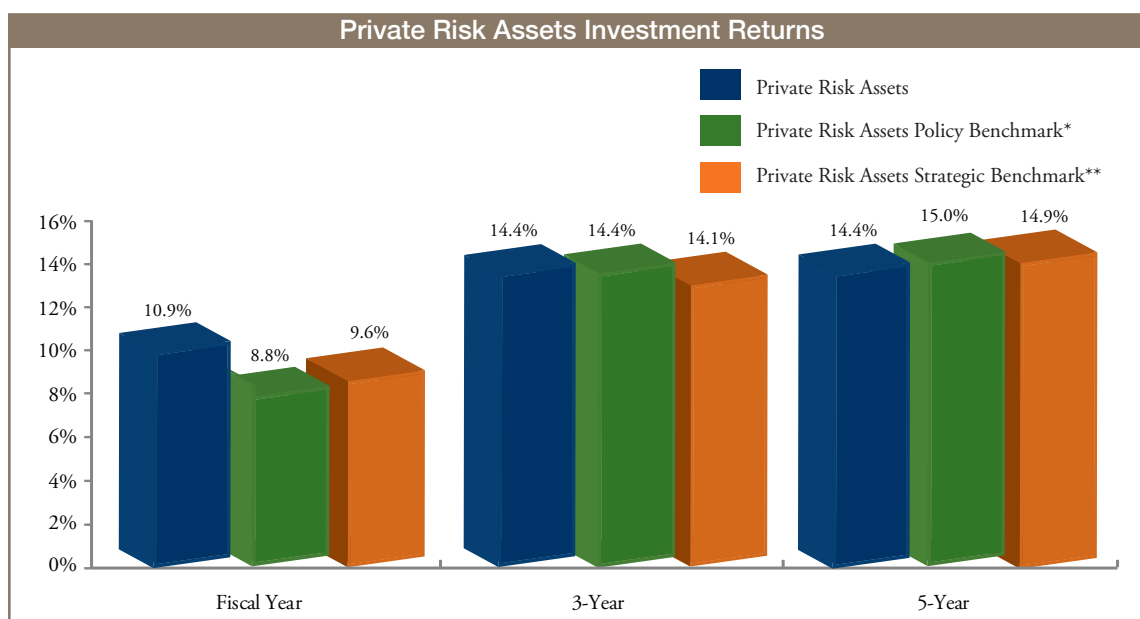




## Performance

The total return for the Private Risk portfolio was 10.9%, compared to the policy benchmark return of 8.8% for the fiscal year ended June 30, 2015. For the three- and five-year time periods, the Systems equaled or marginally underperformed the benchmark as noted below. The underperformance is partially due to the policy benchmark being constructed based on the long term asset allocation. Private Equity is currently underweight to the long term target. The strategic benchmark is adjusted monthly based on the actual asset allocation.

The pricing and performance methodology utilized for private assets can provide for significant performance variances over short time periods. For instance, the Systems utilize a liquid benchmark (Russell 3000 Index) to measure an illiquid (private equity) asset class. Thus, there will be significant performance differences over short time periods in volatile markets. Due to the long term nature of Private Risk assets, the performance can be more appropriately judged over a longer timeframe. As the table below indicates, the Private Risk portfolios have produced strong absolute returns over all time periods.



Private Risk Assets Statistical Performance			
Portfolio Characteristics	Fiscal Year	3-Year	5-Year
Annualized Private Risk Assets Return	10.9%	14.4%	14.4%
Annualized Policy Benchmark Return*	8.8%	14.4%	15.0%
Excess return	2.1%	0.0%	-0.6%
Annualized Strategic Benchmark Return**	9.6%	14.1%	14.9%

\*The Private Risk Assets Policy Benchmark is composed as follows: 52.5% Russell 3000 Index, 37.5% NCREIF Property Index and 10.0% Merrill Lynch High Yield Master II Index.

\*\* The Private Risk Assets Strategic Benchmark changes monthly based on the actual asset allocation at the end of the previous month.

The Private Risk Assets composite was established more recently, so ten-year returns are not available.

## Private Equity Program Summary

*As of June 30, 2015, the Private Equity assets had a market value of approximately \$2.9 billion, representing 7.5% of total assets.*

### Investment Program Description

The Private Equity asset class is comprised of investment opportunities not typically included within the public equity and fixed income markets. Private Equity investments provide financing for start-up companies, private middle market companies, firms in financial distress and public and non-public firms seeking buyout financing. Private Equity investments can be classified into three basic sub-asset class categories:

- Venture Capital,
- Buyouts, and
- Debt-Related.

Investments in the sub-asset classes can be made in the U.S. or foreign countries. In total, the allocation to Non-U.S. Private Equity investments will not exceed 40.0% of the overall Private Equity target allocation. The risks associated with Private Equity will be viewed both in isolation and within the context of the entire fund.

In January 2014, the Board of Trustees approved the development and implementation of a Private Equity Co-Investment Program. The Co-Investment Program is expected to further advance the goals and objectives of the overall Private Equity Program by obtaining additional exposure to underlying portfolio company investments through direct equity investments made on a side-by-side basis with private equity funds where the Systems have an existing relationship. Co-investments serve to increase exposure to the Private Equity asset class with little or no additional fees and/or performance carry paid to the underlying private equity partnerships. The objective of the Co-Investment Program is to leverage existing, high-quality relationships with private equity managers in order to increase commitments to the asset class in a format that does not materially increase overall risk, while simultaneously helping to lower fees and performance carry.

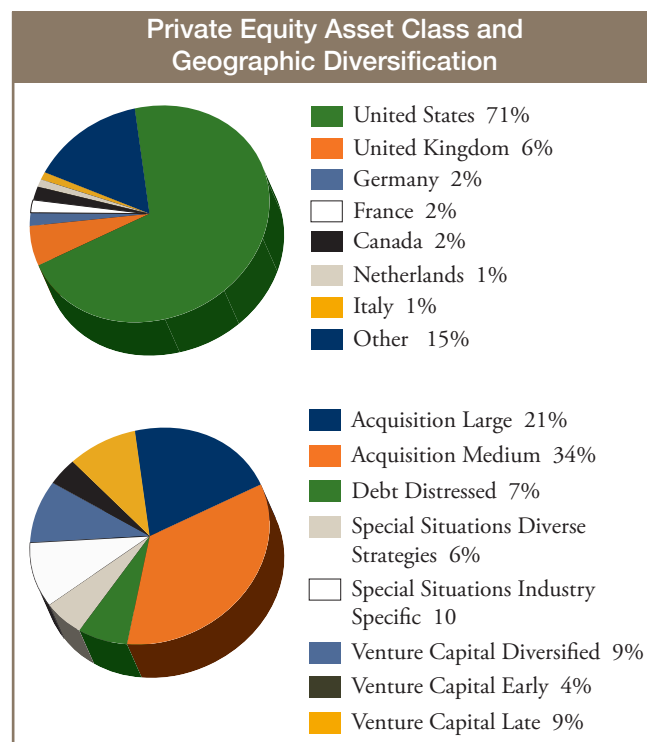
### Structure

As of June 30, 2015, Private Equity assets committed\* for investment were \$6.7 billion. The market value of funds that had been drawn down and actually invested

as of June 30, 2015 were approximately \$2.9 billion, representing 7.5% of total assets. The Systems private equity investment commitments that have not yet been funded were approximately \$2.9 billion as of June 30, 2015.

The objective for the Systems' allocation to Private Equity is to achieve returns that are higher than those attainable in the public equity markets with the added benefit of diversification. The target allocation to Private Equity is 10.5%. However, as of June 30, 2015, the actual allocation for the Systems was just 7.5% because the long-term and illiquid nature of the private equity asset class dictates that capital must be invested at a measured pace. In addition, private equity investments have made record distributions in recent years. Pathway Capital Management has been retained by the Systems to provide private equity investment management services through three structures; a discretionary fund-of-funds relationship, an advisory relationship and a co-investment program. Additionally, the Systems have invested in private equity secondary funds and also utilize Albourne America, LLC to provide private equity advisory services.

The pie charts below show the diversification (utilizing the market value of the assets that have been invested) of the Systems' private equity holdings as of June 30, 2015 from both strategy and country perspectives.



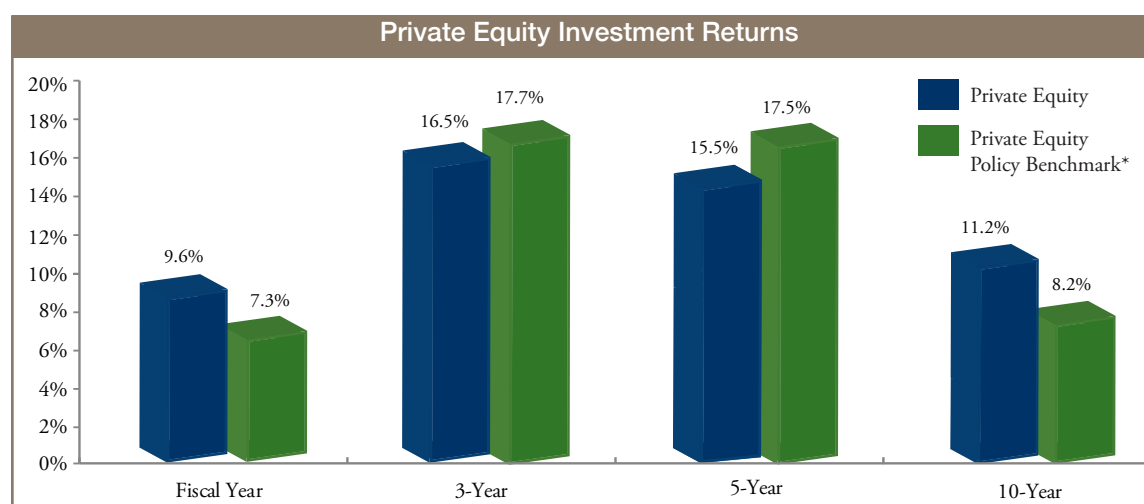
\* Committed capital reflects the total amount of capital that the Systems are legally obligated to supply to the partnerships and funds as the capital is needed to invest in underlying holdings. Market value reflects capital that has actually been drawn and invested by the partnerships and funds.

## Market Overview

Private equity funds continued to perform well in fiscal year 2015. Volatility in the financial markets adversely impacted global IPO issues during the fiscal year. As such, private equity firms found greater success monetizing their investment in the M&A market, which remained robust amid market volatility. Many private equity firms welcomed the volatility and uncertainty in the fiscal year as opportunities to deploy more capital in attractive investment opportunities.

## Performance

The total return for the Private Equity program was 9.6%, compared to the benchmark return of 7.3% for the fiscal year ended June 30, 2015. While short-term returns are not overly insightful for the Private Equity Program in comparison to a benchmark, the one-year return exceeded the benchmark by 230 basis points. The underperformance for the three- and five-year time frames noted below is partially due to the Systems utilizing a liquid benchmark (Russell 3000 Index) to measure an illiquid (private equity) asset class. As such, there could be significant performance differences over short time periods in volatile markets. Due to the long term nature of the asset class, the performance of a private equity portfolio can be more appropriately judged over a longer timeframe. As the table below indicates, the Private Equity portfolio has produced strong absolute returns over all time periods. The ten-year return exceeded the benchmark by 300 basis points.



Private Equity Statistical Performance				
Portfolio Characteristics	Fiscal Year	3-Year	5-Year	10-Year
Annualized Private Equity Return	9.6%	16.5%	15.5%	11.2%
Annualized Policy Benchmark Return*	7.3%	17.7%	17.5%	8.2%
Excess return	2.3%	-1.2%	-2.0%	3.0%

\*The Private Equity policy benchmark is the Russell 3000 Index.

## Investment Advisors

As of June 30, 2015, the Systems had committed to 91 separate partnerships with 46 firms within the Private Equity asset class. In fiscal year 2015, the Systems committed to 15 new partnerships for \$616 million. Additionally, the Systems received total distributions from the private equity partnerships in excess of \$697 million in fiscal year 2015.

Private Equity Investment Advisors			
Investment Advisor	Investment Style	Market Value* As of June 30, 2015	% of Total Market Value
Advent International GPE VII-B	Acquisition - Medium	\$ 36,894,143	0.1%
BC European IX	Acquisition - Medium	22,978,782	0.1%
Blackstone Capital Partners V and VI	Acquisition - Large	36,375,876	0.1%
Canaan Partners IX, and X	Venture Capital	24,308,565	0.1%
Carlyle Europe Partners III	Acquisition - Medium	20,343,895	0.1%
Carlyle Partners IV, V and VI	Acquisition - Large	42,300,912	0.1%
Centerbridge Capital Partners I, II, and III	Acquisition & Debt	52,962,405	0.1%
Centerbridge Capital Special Credit Partners II	Debt - Distressed	39,426,259	0.1%
CVC Capital Partners VI	Acquisition - Large	3,077,871	0.0%
CVC European Equity Partners IV and V	Acquisition - Large	23,265,130	0.0%
CVC European Equity Tandem Fund	Acquisition - Large	2,966,399	0.0%
Encap VIII Co-Investors, IX, Flatrock III, and Energy fund X	Acquisition - Energy	34,633,337	0.1%
Exponent Partners II	Acquisition - Medium	21,323,159	0.1%
First Reserve Fund XI and XII	Acquisition - Energy	24,901,407	0.0%
Genstar Capital Partners V	Acquisition - Medium	4,761,179	0.0%
Glendon Opportunities Fund	Debt - Distressed	15,650,863	0.0%
GTCR Fund IX, XI, and X	Acquisition - Medium	64,576,232	0.1%
Hellman & Friedman Capital Partners VI, VIII, and VII	Acquisition - Large	35,289,506	0.1%
Insight Venture Partners IX	Acquisition - Technology	4,455,864	0.0%
Institutional Investment Partners XV	Venture Capital	1,506,279	0.0%
Kelso Investment Associates VIII	Acquisition - Medium	34,027,352	0.1%
KKR 2006 Fund	Acquisition - Large	27,171,918	0.1%
KRG Fund IV	Acquisition - Medium	18,386,569	0.0%
Lexington Capital Partners VI-B, VII and VIII	Secondary Fund	156,645,475	0.5%
Madison Dearborn VI	Acquisition - Large	21,144,903	0.1%
Montagu III and IV	Acquisition - Medium	24,643,968	0.1%
Nordic VII and VIII	Acquisition - Medium	43,777,054	0.1%
New Enterprise Associates 13, 14, and 15	Venture Capital	82,793,733	0.2%
Oak Investment Partners XIII	Venture Capital	25,742,420	0.1%
OCM Principal Opportunities Fund IV, VII, VIIb, Xb and IX	Debt - Distressed	48,657,484	0.2%
Odyssey Investment Partners IV, V	Acquisition - Medium	13,176,810	0.0%
Onex Partners II, III, and IV	Acquisition - Medium	48,490,040	0.1%
Pantheon Global Secondary Fund III and IV	Secondary Fund	89,003,219	0.2%
Pathway Capital Management	Fund-of-Funds	1,294,557,500	3.4%
Paul Capital Partners IX	Secondary Fund	29,617,132	0.1%
Permira IV and V	Acquisition - Large	22,982,470	0.0%
Providence Equity Partners VI	Acquisition - Medium	23,546,400	0.1%
Quad-C Partners VIII	Acquisition - Medium	30,717,177	0.1%
Quantum Energy Partners V, V-C, V1, and V1-C	Acquisition - Energy	21,338,700	0.0%
The Resolute Fund II and III	Acquisition - Medium	29,860,382	0.1%
Silver Lake Partners III	Acquisition - Technology	22,464,276	0.1%
Spectrum Equity Investors VI, VII	Acquisition - Medium	15,400,652	0.0%
TA XI, XII	Acquisition - Large	24,949,997	0.1%
TCV VI, VII and VIII	Venture Capital	61,663,688	0.1%
Thoma Bravo Special Opps Fund II	Acquisition - Medium	7,668,548	0.0%
Thoma Cressey Fund VIII	Acquisition - Medium	19,861,125	0.1%
TPG Partners V and VI	Acquisition - Large	44,039,540	0.1%
Vista Equity Partners V	Acquisition - Medium	20,820,679	0.1%
Wayzata Opportunities Fund I, II and III	Debt - Distressed	25,302,326	0.0%
Wind Point Partners VI and VII	Acquisition - Medium	40,798,195	0.1%
Cash and cash equivalents	Cash and cash equivalents	1,357,918	0.0%
Stock distribution account	Public Stocks	4,608,500	0.0%
<b>Total</b>		<b>\$ 2,887,214,213</b>	<b>7.5%</b>

\*Market values are reported by the Systems' Private Equity advisors. Market values reflect the most current net asset values. In instances where the most current net asset values were not as of June 30, 2015, the net asset values utilized were cash flow adjusted through June 30, 2015.

## Private Credit Program Summary

*As of June 30, 2015, the Private Credit assets had a market value of approximately \$296 million, representing 0.8% of total assets.*

### Investment Program Description

Investments in Private Credit are similar to Private Equity investments in that they are typically very long-term in nature, not publicly traded, relatively illiquid, and offer the potential for substantially higher returns (along with a commensurate level of risk). The Private Credit portfolio also differs from the Private Equity portfolio, and is a separate and distinct composite within Private Risk Assets. The Private Credit asset class is comprised primarily of debt-related investments that provide a current yield along with equity participation (usually warrants) referred to as an 'equity kicker.' Primary strategies are distressed debt, bankruptcy restructurings, mezzanine debt, bank loans, and other credit-driven or debt-related investment strategies. Investments can be made in the U.S. or foreign countries. In total, the allocation to Non-U.S. Private Credit investments will not exceed 40% of the overall Private Credit target allocation. The risks associated with Private Credit will be viewed both in isolation and within the context of the entire fund.

### Structure

As of June 30, 2015, Private Credit assets committed\* for investment were \$827 million. The market value of funds that have been drawn down and actually invested as of June 30, 2015 was approximately \$296 million, representing 0.8% of total assets. The Systems' private credit investment commitments that have not yet been funded were approximately \$150 million as of June 30, 2015.

The objective for the Systems' allocation to Private Credit is to achieve returns that are higher than those attainable in the public markets with the added benefit of diversification. In December 2009, the Board of Trustees approved 2.0% for the target allocation to the Private Credit asset

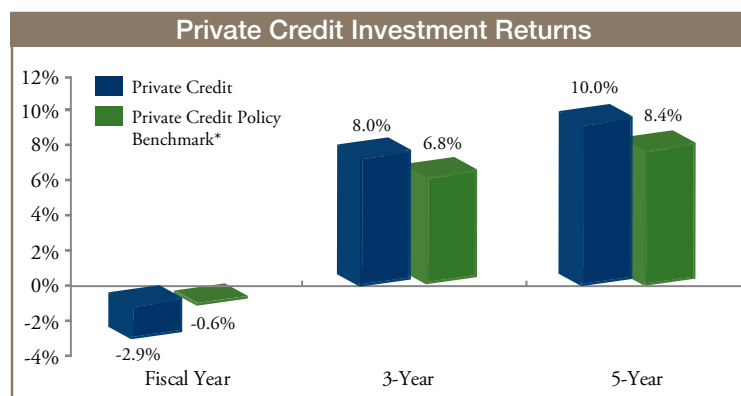
class. The long-term and illiquid nature of the Private Credit asset class dictates that capital must be invested at a measured pace. Pathway Capital Management has been retained by the Systems to provide private credit investment management services through two structures; a discretionary fund-of-funds relationship and an advisory relationship. Albourne America, LLC has also been retained to provide private credit advisory services.

### Market Overview

Private credit markets experienced increased volatility and slightly negative returns as credit spreads widened throughout fiscal year 2015. The Systems' Private Credit partnerships continued to take advantage of market opportunities to realize investments and return cash to investors.

### Performance

The total return for the Private Credit program was -2.9%, compared to the benchmark return of -0.6% for the fiscal year ended June 30, 2015. Short-term returns can be volatile for the Private Credit Program in comparison to a public benchmark, as discussed previously; private assets are more appropriately evaluated over longer time frames. For the five-year time period, the systems outperformed the benchmark by 160 basis points.



Private Credit Statistical Performance			
Portfolio Characteristics	Fiscal Year	3-Year	5-Year
Annualized Private Credit Return	-2.9%	8.0%	10.0%
Annualized Policy Benchmark Return*	-0.6%	6.8%	8.4%
Excess return	-2.3%	1.2%	1.6%

*\*The Private Credit Policy Benchmark is the Merrill Lynch High Yield Master II Index.*

*The Private Credit Program was established in December 2007, so ten-year returns are not available.*

*\* Committed capital reflects the total amount of capital that the Systems are legally obligated to supply to the partnerships and funds as the capital is needed to invest in underlying holdings. Market value reflects capital that has actually been drawn and invested by the partnerships and funds.*



## Investment Advisors

As of June 30, 2015, the Systems had committed to 12 separate partnerships with 10 firms within the Private Credit asset class. In fiscal year 2015, the Systems did not commit to new private credit partnerships. The Systems received total distributions from the private credit partnerships of approximately \$119 million in fiscal year 2015.

Private Credit Investment Advisors			
Investment Advisor	Investment Style	Market Value* As of June 30, 2015	% of Total Market Value
Avenue Capital Group Fund V	Debt - Distressed	\$ 1,687,553	0.0%
Caltius IV	Debt - Mezzanine	2,238,094	0.0%
Centerbridge Special Capital Partners	Debt - Distressed	9,566,196	0.0%
EIG Energy Fund XVI	Debt - Energy	23,222,314	0.1%
Encap Fund VII	Acquisition - Energy	6,124,178	0.0%
Encap Fund VIII	Acquisition - Energy	24,795,189	0.1%
Indigo Capital V	Debt - Mezzanine	7,269,271	0.0%
Lone Star Real Estate Fund II	Debt - Distressed	13,592,749	0.0%
OCM Opportunities Fund VIII	Debt - Distressed	16,833,629	0.0%
OCM Opportunities Fund VIII b	Debt - Distressed	30,731,472	0.1%
Pathway Capital Management	Funds-of-Funds	141,078,606	0.1%
TA Subordinated Debt Fund III	Debt - Mezzanine	19,119,186	0.4%
<b>Total</b>		<b>\$ 296,258,437</b>	<b>0.8%</b>

\*Market values are reported by the Systems' Private Credit advisors. Market values reflect the most current net asset values. In instances where the most current net asset values were not as of June 30, 2015, the net asset values utilized were cash flow adjusted through June 30, 2015.

## Private Real Estate Program Summary

*As of June 30, 2015, the Private Real Estate assets had a market value of approximately \$2.8 billion, representing 7.2% of total assets.*

### Investment Program Description

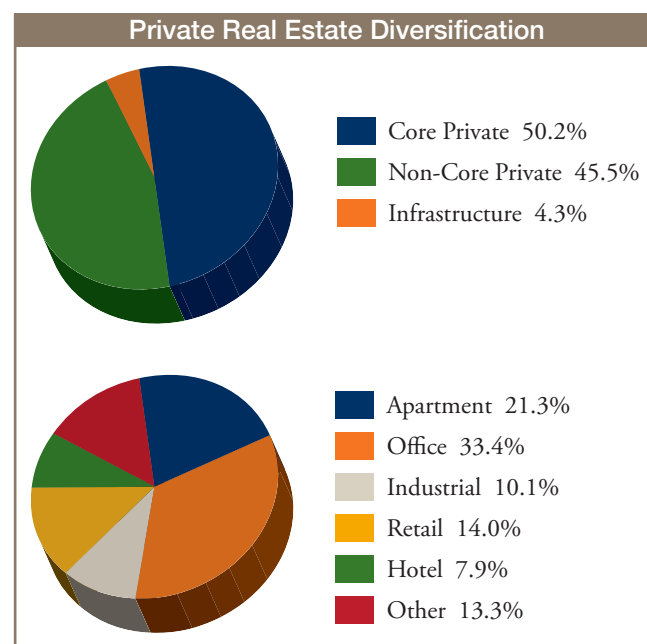
The Real Estate allocation is intended to provide exposure to a diversified portfolio of institutional quality private real estate investments that will provide meaningful, consistent returns, and act as a hedge against inflation and as a diversifier to the overall investment portfolio. The specific objectives of the real estate allocation will be to optimize yield and return, preserve capital and enhance portfolio value across market cycles. The risks associated with Private Real Estate will be viewed both in isolation and within the context of the entire fund.

### Structure

As of June 30, 2015, the Systems' private real estate assets committed\* for investment were \$3.8 billion. The market value of funds that had been drawn down and actually invested as of June 30, 2015 was approximately \$2.8 billion, representing 7.2% of total assets. The Systems' private real estate investment commitments that had not yet been funded were approximately \$849 million as of June 30, 2015.

Within the overall Real Estate allocation, the Systems have established a 55% target allocation to non-core real estate and a 45% allocation to core private real estate. Non-Core investments represent those properties and/or investment strategies that require specialized acquisition and management expertise or skill to mitigate the business and leasing risk that may be associated with individual investments. Non-Core investments have greater associated volatility compared to Core investments. Core investments include existing, substantially leased income-producing properties located mainly in metropolitan areas that exhibit reasonable economic diversification and growth.

The following pie charts indicate the current allocation to real estate investment strategies utilizing the market value of the Systems' invested real estate assets and the diversification within the real estate composite by property type.



### Market Overview

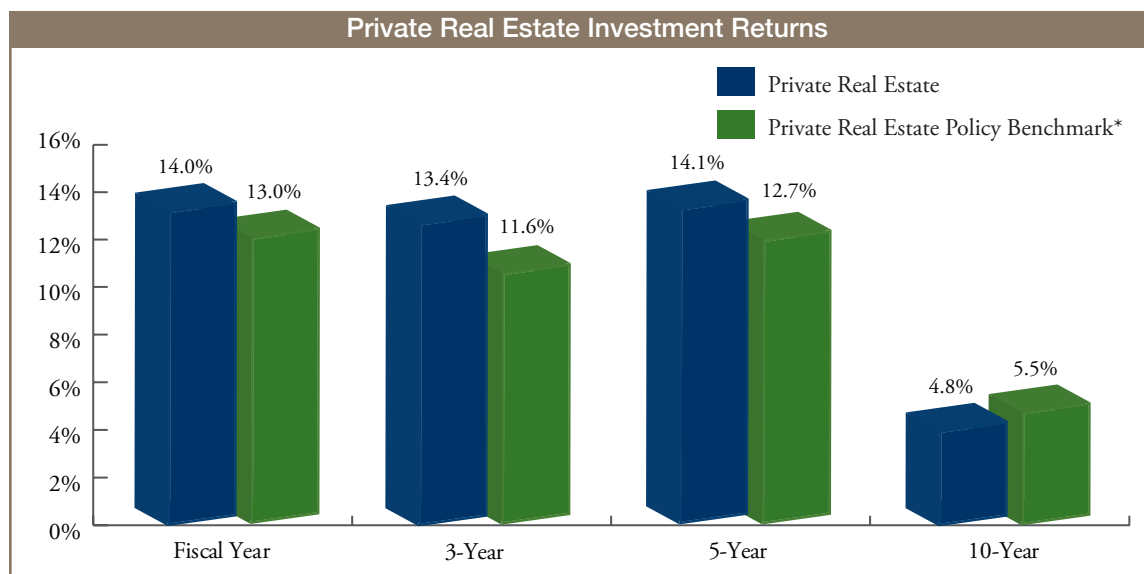
A strengthening labor market supported a continued improvement in the commercial real estate market. Vacancies declined, further supporting rent gains across all major property types. Home ownership is at an all-time low with an increasing demand in the multi-family real estate space. Overall, most real estate markets experienced economic expansion with superior demand relative to supply. The private real estate benchmark, the NCREIF Property Index ("NPI"), increased 13.0% in fiscal year 2015.

The Systems maintain a sizable allocation to high-quality, stabilized real estate assets (core) held in primary markets due to the secure income return. Additionally, the Systems have an allocation to non-core assets to participate in the distressed sector of the real estate market. The Systems will continue to focus real estate efforts going forward on investments that complement the existing portfolio.

*\* Committed capital reflects the total amount of capital that the Systems are legally obligated to supply to the partnerships and funds as the capital is needed to invest in underlying holdings. Market value reflects capital that has actually been drawn and invested by the partnerships and funds.*

## Performance

The total return for the Private Real Estate program was 14.0%, compared to the benchmark return of 13.0% for the fiscal year ended June 30, 2015. The Systems significantly outperformed the policy benchmark for all time periods as noted below, with the exception of the 10-year time period. The underperformance for the 10-year time period was primarily due to the significant downward pressure on real estate valuations during the credit crisis of 2008 and 2009.



Private Real Estate Statistical Performance				
Portfolio Characteristics	Fiscal Year	3-Year	5-Year	10-Year
Annualized Private Real Estate Return	14.0%	13.4%	14.1%	4.8%
Annualized Policy Benchmark Return*	13.0%	11.6%	12.7%	5.5%
Excess return	1.0%	1.8%	1.4%	-0.7%

\*The Real Estate Policy Benchmark is the NCREIF Property Index.

## Investment Advisors

As of June 30, 2015, the Systems had committed to 54 separate partnerships with 29 firms within the Private Real Estate asset class. In fiscal year 2015, the Systems committed to five new partnerships totaling \$381 million. Additionally, the Systems received total distributions from the real estate partnerships in excess of \$488 million in fiscal year 2015.

Private Real Estate Investment Advisors			
Investment Advisor	Investment Style	Market Value* As of June 30, 2015	% of Total Market Value
Alinda Infrastructure Fund I	Infrastructure	\$ 53,439,086	0.1%
Alterna Core Capital Assets Fund II	Infrastructure	24,485,475	0.1%
AMB Alliance III	Non-Core - Private	59,816,662	0.2%
AEW Core Property Fund	Core - Private	89,733,296	0.2%
Blackstone R.E. Partners V, VI, VII, X, and Real Estate Partners Asia	Non-Core - Private	229,775,994	0.7%
Brockton Capital II	Non-Core - Private	40,811,587	0.1%
Carlyle Europe Real Estate Partners III	Non-Core - Private	29,208,058	0.1%
Carlyle Realty V and VI, VII	Non-Core - Private	93,783,435	0.2%
CBRE Fund IV, US Value 5, US Value 6, US Value 7	Non-Core - Private	104,574,063	0.3%
CIM Fund III, and VIII	Non-Core - Private	95,665,618	0.3%
CIM Urban REIT	Non-Core - Private	42,865,472	0.1%
Colony Investors VIII	Non-Core - Private	20,987,706	0.1%
CPI Capital Partners Europe	Non-Core - Private	5,372,372	0.0%
Dune Real Estate Fund I	Non-Core - Private	13,704,165	0.0%
Forum Asian Realty Income II	Non-Core - Private	8,065,024	0.0%
Heitman Value Partners I, II, and III	Non-Core - Private	48,430,175	0.1%
JPMorgan Special Situation Property Fund	Non-Core - Private	110,375,698	0.3%
JPMorgan Strategic Property Fund	Core - Private	306,666,180	0.8%
KKR Real Estate Partners America	Non-Core - Private	40,424,852	0.1%
LaSalle Asia Opportunity Fund II and III	Non-Core - Private	17,108,463	0.0%
LaSalle Income & Growth IV and V	Non-Core - Private	40,019,840	0.1%
LaSalle Japan Logistics Fund II	Non-Core - Private	520,520	0.0%
LaSalle Property Fund	Core - Private	129,299,424	0.3%
Lone Star V and VI	Non-Core - Private	19,266,325	0.0%
Lone Star Real Estate Fund	Non-Core - Private	4,461,826	0.0%
Macquarie Infrastructure Partners	Infrastructure	41,980,753	0.1%
MSREF V International	Non-Core - Private	2,230,545	0.0%
Morgan Stanley Prime Property Fund	Core - Private	349,078,320	0.9%
NREP Real Estate Debt Fund	Non-Core - Private	621,303	0.0%
Noble Hospitality Fund	Non-Core - Private	65,708,698	0.2%
Principal Enhanced Property Fund	Core - Private	41,454,122	0.1%
Prudential PRISA Fund	Core - Private	162,382,462	0.4%
Prudential PRISA III	Non-Core - Private	33,059,085	0.1%
RREEF America REIT III	Non-Core - Private	17,464,097	0.1%
Standard Life European Real Estate Fund	Non-Core - Private	24,347,737	0.1%
Starwood Hospitality Fund	Non-Core - Private	11,628,564	0.0%
UBS Trumbull Property Fund	Core - Private	317,014,714	0.8%
Westbrook R.E. Fund VII, VIII, and IX	Non-Core - Private	83,818,604	0.2%
<b>Total</b>		<b>\$ 2,779,650,320</b>	<b>7.2%</b>

\*Market values are reported by the Systems' Private Real Estate advisors. Market values reflect the most current net asset values. In instances where the most current net asset values were not as of June 30, 2015, the net asset values utilized were cash flow adjusted through June 30, 2015.

## U.S. Public Equity Broker Commissions Report

Brokerage Firm	Shares Traded	Dollars Traded	Commissions Paid	Cost Per Share
Capital Institutional Services	8,279,724	\$ 409,507,210	\$ 294,731	\$ 0.04
Merrill Lynch	26,065,963	1,008,539,362	270,358	0.01
Investment Technology Group	33,182,270	1,418,425,702	262,633	0.01
Deutsche Bank	23,470,607	847,613,545	215,466	0.01
Instinet, LLC	15,126,750	503,247,036	194,408	0.01
UBS Securities, LLC	5,691,194	177,318,084	148,875	0.03
SG Cowen & Co	15,402,378	606,663,282	146,880	0.01
Citigroup Global Markets, Inc.	6,993,921	235,190,438	120,391	0.02
Bank of New York	9,436,408	308,329,936	119,348	0.01
Weeden & Co	10,086,003	535,373,965	114,716	0.01
Other ( < \$100,000)	89,856,106	3,260,195,035	1,622,490	0.02
<b>Total</b>	<b>243,591,324</b>	<b>\$ 9,310,403,595</b>	<b>\$ 3,510,296</b>	<b>\$ 0.01</b>

## Non-U.S. Public Equity Broker Commissions Report

Brokerage Firm	Shares Traded	Dollars Traded	Commissions Paid	Cost (Basis Points)
Merrill Lynch	70,171,130	\$ 398,958,700	\$ 247,902	6.2
Instinet, LLC	92,175,796	509,360,070	203,975	4.0
Morgan Stanley & Co Incorporated	50,991,929	240,722,283	190,220	7.9
Goldman Sachs and Company	66,562,692	306,559,493	170,032	5.5
Deutsche Bank	63,062,262	275,434,728	156,917	5.7
Citigroup Global Markets, Inc.	35,781,003	136,602,867	146,355	10.7
Investment Technology Group	42,232,363	317,271,258	123,705	3.9
Credit Suisse Securities, LLC	24,066,323	81,328,801	106,114	13.0
JP Morgan Chase	16,529,819	140,907,784	106,045	7.5
UBS Securities, LLC	16,217,336	137,643,305	102,986	7.5
Daiwa Securities Company, LTD	26,983,430	195,529,586	81,038	4.1
Other ( < \$50,000)	108,531,758	641,843,689	445,778	6.9
<b>Total</b>	<b>613,305,841</b>	<b>\$ 3,382,162,565</b>	<b>\$ 2,081,068</b>	<b>6.2</b>



## Investment Summary as of June 30, 2015

Asset Type	Fair Value	Percent of Total Fair Value	
		FY 2015	FY 2014
<i>Public Risk Assets</i>			
U.S. Public Equity	\$ 11,567,580,059	30.0%	32.8%
Non-U.S. Public Equity	6,040,640,351	15.7%	15.4%
Public Credit	2,469,001,165	6.4%	7.7%
Hedged Assets	5,420,528,210	14.1%	13.5%
<b>Total Public Risk Assets</b>	<b>25,497,749,785</b>	<b>66.2%</b>	<b>69.4%</b>
<i>Safe Assets</i>			
U.S. Treasuries	5,537,641,283	14.4%	11.0%
U.S. TIPS	516,740,787	1.3%	1.4%
Cash Equivalents	957,142,426	2.5%	2.9%
<b>Total Safe Assets</b>	<b>7,011,524,496</b>	<b>18.2%</b>	<b>15.3%</b>
<i>Private Risk Assets</i>			
Private Real Estate	2,779,650,320	7.2%	7.0%
Private Equity	2,887,214,213	7.5%	7.0%
Private Credit	296,258,437	0.8%	1.0%
<b>Total Private Risk Assets</b>	<b>5,963,122,970</b>	<b>15.5%</b>	<b>15.0%</b>
<b>Securities Lending Collateral</b>	<b>3,452</b>	<b>0.0%</b>	<b>0.0%</b>
<b>Cash &amp; Equivalents*</b>	<b>100,551,365</b>	<b>0.1%</b>	<b>0.3%</b>
<b>Total Investments**</b>	<b>\$ 38,572,952,068</b>	<b>100.0%</b>	<b>100.0%</b>
<b><i>Reconciliation with Financial Statements</i></b>			
Total from above	\$ 38,572,952,068		
Accrued payable for investments purchased	2,129,529,627		
Accrued income payable	120,467		
Accrued receivable for investments sold	(1,588,159,926)		
Accrued income receivable	(69,989,802)		
Securities lending collateral	(3,452)		
Short-term investments designated for benefits	(94,820,703)		
<b>Statements of Fiduciary Net Position</b>	<b>\$ 38,949,628,279</b>		

\*Managers may hold cash or cash equivalents as part of an active management strategy. Cash or cash equivalents held as part of an active management strategy are not separately listed.

\*\* Total Investments includes accrued income and securities lending collateral as of June 30, 2015.

## Investment Expenses for the Fiscal Year Ended June 30, 2015

**Investment Managers****Investment Management Fees**

NISA Investment Advisors - Core	\$ 4,243,514
NISA Investment Advisors - TIPS	<u>332,425</u>

**Safe Assets Fees** 4,575,939

NISA Investment Advisors - Corporate	1,023,740
Oaktree Bank Loans	1,710,936
Pacific Investment Management Company	<u>4,684,207</u>

**Public Credit Fees** 7,418,883

Analytic Investors, LLC	2,053,100
AQR Capital Management	2,256,428
Aronson & Johnson & Ortiz	2,310,780
BlackRock Investment Management	186,806
Columbia Management	929,830
Martingale Asset Management	1,236,478
Westwood Management	3,724,901
Zevenbergen Capital	<u>1,377,866</u>

**US Public Equity Fees** 14,076,189

Acadian Asset Management	634,830
Alliance Bernstein Institutional Management	1,181,115
Analytic Investors, LLC	1,009,770
AQR Capital Management	1,904,197
Arrowstreet Capital	6,139,569
BlackRock - ACWI EX US	454,578
Coronation Asset Management Limited	1,269,662
MFS Institutional Advisors	3,177,070
Neon Capital Management	1,154,390
NISA Investment Advisors	78,462
The Rock Creek Group	<u>3,221,902</u>

**Non-U.S. Public Equity Fees** 20,225,545

Allianz	968,421
AQR Capital Management	761,952
Chartwell Investment Partners	595,924
Columbus Circle	805,712
NISA Investment Advisors	88,319
Next Century Growth Investors	637,907
RBC Global Asset Management	<u>1,035,105</u>

**S-Cap Fees** 4,893,341

**Alpha Overlay Fees** 50,948,037

**Hedged Assets Fees** 117,311,467

**Private Real Estate Fees** 52,719,111

**Private Credit Fees** 190,011

**Private Equity Fees** 163,045,041

**Commission Recapture Income** (247,913)

**Investment Management Expense** 435,155,651

**Custodial Services**

JP Morgan Chase, NA	<u>549,710</u>
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**Custodial Fees** 549,710

**Investment Consultants**

Albourne America, LLC	800,000
Pathway Consulting	3,025,750
Institutional Shareholder Services, Inc.	65,000
Towers Watson	398,673
Townsend	350,000
RVK, Inc.	<u>31,089</u>

**Investment Consultant Fees** 4,670,512

**Legal Expenses** 4,851,374

**Staff Investment Expenses** 2,880,272

**Total Investment Expenses** \$ 448,107,519



## Financial Security

### Peace of Mind as Long as You Live

Perhaps the most valuable benefit of PSRS/PEERS membership is that benefits are paid for your lifetime. The amount of money in your membership when you retire does not impact the amount of benefits you can receive. Your PSRS/PEERS benefits will not run out and leave you without the retirement income you need.

## Actuarial Section

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# Certification of Actuarial Results



November 9, 2015

Board of Trustees  
Public School Retirement System of Missouri  
Public Education Employee Retirement System of Missouri  
3210 West Truman Boulevard  
Jefferson City, MO 65109

## Re: Certification of Actuarial Results

Dear Members of the Board:

At your request, we have performed actuarial valuations of the Public School Retirement System of Missouri (PSRS) and the Public Education Employee Retirement System of Missouri (PEERS) as of June 30, 2015. An actuarial valuation of each System is performed annually.

The actuarial valuation is based upon:

- a. *Benefit Provisions* - Benefit provisions in effect on the valuation date under Missouri Revised Statutes Chapter 169 were reflected in the valuations.
- b. *Data Relative to the Members of the Systems* - Data for all members of each System was provided by the staff. The data was tested for reasonableness but was used unaudited.
- c. *Assets of the Fund* - The values of the trust fund assets as of the valuation date for each System are provided by the staff. An actuarial value of assets, with gains and losses recognized over five years, is used in the development of the contribution rates.
- d. *Actuarial Cost Method* - The actuarial cost method utilized by each System for accounting purposes is the Entry Age Normal Cost Method, as required by GASB Statement No. 67. The system has elected to use the same cost method in the determination of the contribution rates for pre-funding the benefits. The objective of this method is to allocate the cost of benefits as a level percentage of pay over the entire career of each member. On a funding basis, any Unfunded Actuarial Accrued Liability (UAAL) is separately financed as a level percentage of payroll over a fixed 30-year period, where a new 30-year base is established for the gain or loss that occurred during the year.
- e. *Actuarial Assumptions* - The June 30, 2015 valuations were based on the same actuarial assumptions used for the June 30, 2014 valuations. The basis of the assumptions was an experience study completed for each System as of June 30, 2011. Based on those studies, the Board adopted several assumption changes effective for the actuarial valuations as of June 30, 2011. Minor updates were made for the June 30, 2012 valuations. For the June 30 2013 valuations, the retirement rates were updated to reflect the permanent extension of the Special Early Retirement (25-and-out) benefit in PSRS and PEERS and for the one year extension of the enhanced Normal Retirement (2.55% Benefit factor) benefit in PSRS. There were no further assumption changes for the June 30, 2014 or June 30, 2015 evaluations. The next experience study is scheduled to be completed prior to the June 30, 2016 valuation.

PricewaterhouseCoopers LLP, One North Wacker Drive Chicago, IL, 60606  
T: (312)298 2000, F: (312) 298 2001, [www.pwc.com/us](http://www.pwc.com/us)



## Certification of Actuarial Results, continued



For accounting purposes, the actuarial assumptions and methods used in this valuation were selected and approved by the Board and are in accordance with our understanding of GASB Statement No. 67. For funding purposes, the actuarial assumption and methods are consistent with the funding policy adopted by the PSRS/PEERS Board of Trustees and summarized below. In general, the methods provide orderly funding of all benefits being accrued, as well as any Unfunded Actuarial Accrued Liability, over a period of thirty years. The smoothing method employed in determining the Actuarial Value of Assets may accelerate or lengthen the effective funding period, depending on whether gains or losses are experienced. In our opinion, the actuarial assumptions and methods are reasonable for purposes of the actuarial valuations.

In order to establish long-term, consistent methods for pre-funding the benefits of each System, the Board of Trustees has adopted a funding policy. The objective is to achieve a funded ratio of 100% over a closed 30-year period from fiscal year 2011 through fiscal year 2040. For this purpose, the funded ratio is defined as the Actuarial Value of Assets divided by the Actuarial Accrued Liability determined under the Entry Age Normal Cost Method with Normal Costs calculated as a percentage of payrolls.

Principles of the funding policy include:

1. Maintain adequate assets so that current plan assets plus future contributions and investment earnings should be sufficient to fund all benefits expected to be paid to members and their beneficiaries.
2. Maintain stability of contribution rates, consistent with other funding objectives.
3. Maintain public policy goals of accountability and transparency. Each policy element is clear in intent and effect, and each should allow an assessment of whether, how and when the funding requirements of the plan will be met.
4. Promote intergenerational equity. Each generation of members and employers should incur the cost of benefits for the employees who provide services to them, rather than deferring those costs to future members and employers.
5. Provide a reasonable margin for adverse experience to help offset risks.
6. Review the investment earning assumption in conjunction with the periodic asset liability study and in consideration of the Board's risk profile.
7. Review demographic and economic assumptions in conjunction with an experience study performed by an actuary.
8. Continue progress of systematic reduction of the UAAL while keeping the member and employer contribution rates at or near those paid during 2010-2011.

The actuarially determined contribution rates developed from the June 30, 2015 valuations reflect these principles.

Trend data in the Financial Section and the schedules and other data in this Actuarial Section are prepared by the staff with our guidance.

We certify these results to be true and correct.

Sincerely,

Cindy Fraterrigo, FSA, EA, MAAA  
Principal

Brandon Robertson, ASA, EA, MAAA  
Director

Schedule of Funding Progress						
Public School Retirement System of Missouri (Dollar amounts in thousands)						
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL)- Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
6/30/06	\$ 24,801,644	\$ 30,037,130 <sup>1</sup>	\$ 5,235,486	82.6%	\$ 3,775,752	138.7%
6/30/07	27,049,004	32,396,723 <sup>2</sup>	5,347,719	83.5%	3,980,698	134.3%
6/30/08	28,751,241	34,490,452 <sup>1</sup>	5,739,211	83.4%	4,209,417	136.3%
6/30/09	28,826,075	36,060,121 <sup>1</sup>	7,234,046	79.9%	4,439,381	163.0%
6/30/10	28,931,331	37,233,602 <sup>1</sup>	8,302,271	77.7%	4,493,865	184.7%
6/30/11	29,387,486	34,383,430 <sup>3</sup>	4,995,944	85.5%	4,338,976	115.1%
6/30/12	29,013,002	35,588,030 <sup>1</sup>	6,575,028	81.5%	4,379,060	150.1%
6/30/13	29,443,147	36,758,165 <sup>2</sup>	7,315,018	80.1%	4,460,872	164.0%
6/30/14	31,846,599	38,483,184 <sup>1</sup>	6,636,585	82.8%	4,425,568	150.0%
6/30/15	34,073,415	40,610,540 <sup>1</sup>	6,537,125	83.9%	4,508,242	145.0%

<sup>1</sup> There were no legislative changes in fiscal years 2006, 2008, 2009, 2010, 2012, 2014 and 2015.

<sup>2</sup> The 25-and-out and 2.55% provisions were extended in 2007 through 2013. In 2013 the state legislature provided a permanent extension of the 25-and-out provision and extended the 2.55% provision to 2014.

<sup>3</sup> There were no legislative changes in fiscal year 2011, however actuarial assumptions were revised.

Schedule of Funding Progress						
Public Education Employee Retirement System of Missouri (Dollar amounts in thousands)						
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL)- Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
6/30/06	\$ 2,218,638	\$ 2,756,833 <sup>1</sup>	\$ 538,195	80.5%	\$ 1,190,994	45.2%
6/30/07	2,481,562	2,982,812 <sup>1</sup>	501,250	83.2%	1,275,199	39.3%
6/30/08	2,703,762	3,278,602 <sup>1</sup>	574,840	82.5%	1,377,506	41.7%
6/30/09	2,792,182	3,458,044 <sup>1</sup>	665,862	80.7%	1,417,485	47.0%
6/30/10	2,892,411	3,658,713 <sup>1</sup>	766,302	79.1%	1,433,691	53.4%
6/30/11	3,028,757	3,549,348 <sup>3</sup>	520,591	85.3%	1,414,442	36.8%
6/30/12	3,090,880	3,746,347 <sup>1</sup>	655,467	82.5%	1,437,310	45.6%
6/30/13	3,237,200	3,967,619 <sup>2</sup>	730,419	81.6%	1,470,830	49.7%
6/30/14	3,584,719	4,211,489 <sup>1</sup>	626,770	85.1%	1,442,701	43.4%
6/30/15	3,915,199	4,512,317 <sup>1</sup>	597,118	86.8%	1,469,772	40.6%

<sup>1</sup> There were no legislative changes in fiscal years 2006, 2008, 2009, 2010, 2012, 2014 and 2015.

<sup>2</sup> The 25-and-out and 2.55% provisions were extended in 2007 through 2013. In 2013 the state legislature provided a permanent extension of the 25-and-out provision.

<sup>3</sup> There were no legislative changes in fiscal year 2011, however actuarial assumptions were revised.

**Required Contribution Rate & Amortization of Unfunded Liability**
**Public School Retirement System of Missouri**
*For the fiscal year ended June 30, 2015*

	<u>Percentage of Payroll</u>
(1) Normal cost rate	18.69%
(2) Rate needed to fund UAAL	<u>9.42%</u>
(3) Benchmark contribution rate - normal cost plus a rate to fund the UAAL over 25.8 years	28.11%
(4) Additional amount towards funding UAAL	<u>0.89%</u>
(5) Recommended rate for FY 2017	<u><u>29.00%</u></u>

*The effective amortization period for the contribution rate of 29.0% is 22.1 years.*

**Required Contribution Rate & Amortization of Unfunded Liability**
**Public Education Employee Retirement System of Missouri**
*For the fiscal year ended June 30, 2015*

	<u>Percentage of Payroll</u>
(1) Normal cost rate	10.98%
(2) Rate needed to fund UAAL	<u>2.59%</u>
(3) Benchmark contribution rate - normal cost plus a rate to fund the UAAL over 25.6 years	13.57%
(4) Additional amount towards funding UAAL	<u>0.15%</u>
(5) Recommended rate for FY 2017	<u><u>13.72%</u></u>

*The effective amortization period for the contribution rate of 13.72% is 23.2 years.*

**Reconciliation of Unfunded Actuarial Accrued Liability**
**Public School Retirement System of Missouri**
*As of June 30, 2015*

Unfunded actuarial liability as of July 1, 2014		\$ 6,636,584,545
Changes in Unfunded Actuarial Accrued Liability		-
a. Impact of Plan Changes	-	
b. Actuarial (Gains)/Losses		
i. From investment	(698,375,937)	
ii. From actuarial liabilities due to assumption changes	-	
iii. From actuarial liabilities due to actual vs. expected COLA	-	
iv. From actuarial liabilities due to actual vs. expected salary changes	(279,515,391)	
v. From actuarial liabilities due to other demographic experience	<u>877,932,447</u>	
vi. Total Unfunded Actuarial Accrued Liability (Gain)/Loss		(99,958,881)
c. (Excess)/Shortfall of Contributions		<u>(92,659,070)</u>
d. Total New Amortization Bases:		(192,617,951)
e. Net change in existing bases due to prior year contributions, net of interest		<u>93,157,792</u>
f. Total changes in Unfunded Actuarial Accrued Liability		(99,460,159)
Actual unfunded actuarial liability as of June 30, 2015		<u>\$ 6,537,124,386</u>

**Reconciliation of Unfunded Actuarial Accrued Liability**
**Public Education Employee Retirement System of Missouri**
*As of June 30, 2015*

Unfunded actuarial liability as of July 1, 2014		\$ 626,769,599
Changes in Unfunded Actuarial Accrued Liability		-
a. Impact of Plan Changes	-	
b. Actuarial (Gains)/Losses		
i. From investment	(65,544,641)	
ii. From actuarial liabilities due to assumption changes	-	
iii. From actuarial liabilities due to actual vs. expected COLA	-	
iv. From actuarial liabilities due to actual vs. expected salary changes	(40,412,831)	
v. From actuarial liabilities due to other demographic experience	<u>85,931,233</u>	
vi. Total Unfunded Actuarial Accrued Liability (Gain)/Loss		(20,026,239)
c. (Excess)/Shortfall of Contributions		<u>(19,352,712)</u>
d. Total New Amortization Bases:		(39,378,951)
e. Net change in existing bases due to prior year contributions, net of interest		<u>9,727,218</u>
f. Total changes in Unfunded Actuarial Accrued Liability		(29,651,733)
Actual unfunded actuarial liability as of June 30, 2015		<u>\$ 597,117,866</u>

**Schedule of Active Member Valuation Data**
**Public School Retirement System of Missouri**

Actuarial Valuation Date	Number of Employers	Number of Members	Covered Annual Payroll (000's)	Average Annual Salary	% Increase in Average Salary	Average Attained Age	Average Years of Service
6/30/06	544	75,540	\$ 3,775,752	\$ 49,983	4.3%	42.4	11.2
6/30/07	543	77,121	3,980,698	51,616	3.3%	42.3	11.1
6/30/08	542	78,436	4,209,417	53,667	4.0%	42.2	11.1
6/30/09	540	79,335	4,439,381	55,957	4.3%	42.2	11.1
6/30/10	538	79,256	4,493,865	56,701	1.3%	42.3	11.3
6/30/11	537	77,708	4,338,976	55,837	-1.5%	42.3	11.5
6/30/12	537	77,529	4,379,060	56,483	1.2%	42.2	11.4
6/30/13	535	78,076	4,460,872	57,135	1.2%	42.1	11.4
6/30/14	535	75,168	4,425,568	58,876	3.0%	42.2	11.8
6/30/15	535	78,138	4,508,242	58,582	-0.5%	42.0	11.5

**Schedule of Active Member Valuation Data**
**Public Education Employee Retirement System of Missouri**

Actuarial Valuation Date	Number of Employers	Number of Members	Covered Annual Payroll (000's)	Average Annual Salary	% Increase in Average Salary	Average Attained Age	Average Years of Service
6/30/06	536	48,188	\$ 1,190,994	\$ 24,716	9.1%	46.4	7.1
6/30/07	536	49,281	1,275,199	25,876	4.7%	46.6	7.2
6/30/08	536	50,865	1,377,506	27,082	4.7%	46.8	7.3
6/30/09	535	51,234	1,417,485	27,667	2.2%	47.1	7.7
6/30/10	535	50,363	1,433,691	28,467	2.9%	47.5	8.0
6/30/11	534	48,800	1,414,442	28,984	1.8%	47.9	8.3
6/30/12	534	48,605	1,437,310	29,571	2.0%	48.1	8.4
6/30/13	532	48,709	1,470,830	30,196	2.1%	48.1	8.5
6/30/14	532	45,589	1,442,701	31,646	4.8%	48.6	8.9
6/30/15	532	46,864	1,469,772	32,220	1.8%	48.4	8.6



**Schedule of Active Member Valuation Data**
**Public School Retirement System of Missouri**

Actuarial Valuation Date	Number of Employers	Number of Members	Covered Annual Payroll (000's)	Average Annual Salary	% Increase in Average Salary	Average Attained Age	Average Years of Service
6/30/06	544	75,540	\$ 3,775,752	\$ 49,983	4.3%	42.4	11.2
6/30/07	543	77,121	3,980,698	51,616	3.3%	42.3	11.1
6/30/08	542	78,436	4,209,417	53,667	4.0%	42.2	11.1
6/30/09	540	79,335	4,439,381	55,957	4.3%	42.2	11.1
6/30/10	538	79,256	4,493,865	56,701	1.3%	42.3	11.3
6/30/11	537	77,708	4,338,976	55,837	-1.5%	42.3	11.5
6/30/12	537	77,529	4,379,060	56,483	1.2%	42.2	11.4
6/30/13	535	78,076	4,460,872	57,135	1.2%	42.1	11.4
6/30/14	535	75,168	4,425,568	58,876	3.0%	42.2	11.8
6/30/15	535	78,138	4,508,242	58,582	-0.5%	42.0	11.5

**Schedule of Active Member Valuation Data**
**Public Education Employee Retirement System of Missouri**

Actuarial Valuation Date	Number of Employers	Number of Members	Covered Annual Payroll (000's)	Average Annual Salary	% Increase in Average Salary	Average Attained Age	Average Years of Service
6/30/06	536	48,188	\$ 1,190,994	\$ 24,716	9.1%	46.4	7.1
6/30/07	536	49,281	1,275,199	25,876	4.7%	46.6	7.2
6/30/08	536	50,865	1,377,506	27,082	4.7%	46.8	7.3
6/30/09	535	51,234	1,417,485	27,667	2.2%	47.1	7.7
6/30/10	535	50,363	1,433,691	28,467	2.9%	47.5	8.0
6/30/11	534	48,800	1,414,442	28,984	1.8%	47.9	8.3
6/30/12	534	48,605	1,437,310	29,571	2.0%	48.1	8.4
6/30/13	532	48,709	1,470,830	30,196	2.1%	48.1	8.5
6/30/14	532	45,589	1,442,701	31,646	4.8%	48.6	8.9
6/30/15	532	46,864	1,469,772	32,220	1.8%	48.4	8.6

**Solvency Test**
**Public School Retirement System of Missouri**
*(Dollar amounts in thousands)*

Actuarial Valuation Date	Actuarial Accrued Liability for:				Percentage of Actuarial Liabilities Covered by Net Assets for:		
	Member Contributions	Current Retirees & Beneficiaries	Active & Inactive Members Employer Financed Portion	Actuarial Value of Assets	(1)	(2)	(3)
	(1)	(2)	(3)				
6/30/2006	\$ 5,453,906	\$ 15,371,279	\$ 9,211,945	\$ 24,801,644	100.00 %	100.00 %	43.20%
6/30/2007	5,787,667	17,059,613	9,549,443	27,049,004	100.00	100.00	44.00
6/30/2008	6,174,718	18,548,552	9,767,182	28,751,241	100.00	100.00	41.20
6/30/2009	6,299,067	19,745,129	10,015,925	28,826,075	100.00	100.00	27.80
6/30/2010	6,506,803	20,532,011	10,194,788	28,931,331	100.00	100.00	18.60
6/30/2011	6,571,916	20,023,701	7,787,813	29,387,486	100.00	100.00	35.80
6/30/2012	6,687,358	21,191,032	7,709,641	29,013,002	100.00	100.00	14.70
6/30/2013	6,856,920	22,328,795	7,572,451	29,443,147	100.00	100.00	3.40
6/30/2014	6,985,665	23,579,998	7,917,522	31,846,599	100.00	100.00	16.20
6/30/2015	6,787,038	24,674,171	9,149,331	34,073,415	100.00	100.00	28.60

**Solvency Test**
**Public Education Employee Retirement System of Missouri**
*(Dollar amounts in thousands)*

Actuarial Valuation Date	Actuarial Accrued Liability for:				Percentage of Actuarial Liabilities Covered by Net Assets for:		
	Member Contributions	Current Retirees & Beneficiaries	Active & Inactive Members Employer Financed Portion	Actuarial Value of Assets	(1)	(2)	(3)
	(1)	(2)	(3)				
6/30/2006	\$ 524,014	\$ 1,020,486	\$ 1,212,333	\$ 2,218,638	100.00%	100.00 %	55.6 %
6/30/2007	580,853	1,093,650	1,308,310	2,481,562	100.00	100.00	61.7
6/30/2008	650,970	1,215,036	1,412,596	2,703,762	100.00	100.00	59.3
6/30/2009	693,962	1,305,025	1,459,057	2,792,182	100.00	100.00	54.4
6/30/2010	743,146	1,392,753	1,522,813	2,892,411	100.00	100.00	49.7
6/30/2011	783,112	1,398,620	1,367,616	3,028,757	100.00	100.00	61.9
6/30/2012	822,485	1,541,541	1,382,321	3,090,880	100.00	100.00	52.6
6/30/2013	862,035	1,653,613	1,451,971	3,237,200	100.00	100.00	49.7
6/30/2014	894,650	1,861,575	1,455,264	3,584,719	100.00	100.00	56.9
6/30/2015	892,547	2,040,647	1,579,123	3,915,199	100.00	100.00	62.2

# ACTUARIAL SECTION

## PSRS Schedule of Retirees and Beneficiaries Added to and Removed from Retirement Rolls

	Added to Rolls		Removed from Rolls		Rolls End of Year			% Increase	
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances	Average Annual Allowances	in Annual Allowance	in Average Annual Allowance
2014-2015									
Service Retirees	2,571	\$ 92,740,440	933	\$ 30,965,898	51,345	\$ 2,109,756,890	\$ 41,106	5.07 %	1.65 %
Disability Retirees	74	2,034,400	41	909,636	892	23,641,506	26,504	6.55	2.25
Beneficiaries	351	10,810,471	387	4,706,760	3,884	110,685,031	28,498	7.82	7.48
Note: Effective June 30, 2015, retirees and beneficiaries with their benefits on hold are included in the payment rolls at year-end.									
2013-2014									
Service Retirees	2,906	\$ 110,291,762	848	\$ 27,701,354	49,652	\$ 2,007,864,810	\$ 40,439	6.31 %	1.91 %
Disability Retirees	59	1,461,178	45	827,024	856	22,188,843	25,922	3.82	2.12
Beneficiaries	303	9,030,545	186	3,874,901	3,872	102,660,521	26,514	6.72	3.50
Note: 106 retirees and beneficiaries had their benefit on hold at June 30, 2014 and are not included in the payment rolls at the end of the year.									
2012-2013									
Service Retirees	2,659	\$ 98,663,536	907	\$ 27,431,830	47,594	\$ 1,888,628,855	\$ 39,682	5.92 %	2.02 %
Disability Retirees	69	1,808,376	28	627,785	842	21,372,682	25,383	7.58	2.33
Beneficiaries	376	9,380,442	185	3,088,202	3,755	96,196,708	25,618	8.55	3.02
Note: 115 retirees and beneficiaries had their benefit on hold at June 30, 2013 and are not included in the payment rolls at the end of the year.									
2011-2012									
Service Retirees	2,946	\$ 108,593,761	822	\$ 25,293,380	45,842	\$ 1,783,144,601	\$ 38,898	6.92 %	1.97 %
Disability Retirees	70	1,628,482	30	618,063	801	19,867,641	24,804	7.17	1.82
Beneficiaries	310	11,791,505	181	3,489,331	3,564	88,623,659	24,866	7.27	3.39
Note: 137 retirees and beneficiaries had their benefit on hold at June 30, 2012 and are not included in the payment rolls at the end of the year.									
2010-2011									
Service Retirees	3,145	\$ 115,976,129	891	\$ 25,543,283	43,718	\$ 1,667,760,851	\$ 38,148	5.77 %	0.31 %
Disability Retirees	76	2,095,095	36	885,453	761	18,538,146	24,360	6.98	1.36
Beneficiaries	347	7,794,495	194	3,208,289	3,435	82,616,257	24,051	5.86	1.14
Note: 151 retirees and beneficiaries had their benefit on hold at June 30, 2011 and are not included in the payment rolls at the end of the year.									
2009-2010									
Service Retirees	2,392	\$ 84,290,821	825	\$ 23,896,894	41,464	\$ 1,576,834,116	\$ 38,029	4.02 %	0.09 %
Disability Retirees	54	1,337,647	29	646,445	721	17,328,504	24,034	4.18	0.57
Beneficiaries	290	7,127,771	161	2,596,246	3,282	78,045,764	23,780	6.18	2.00

## PEERS Schedule of Retirees and Beneficiaries Added to and Removed from Retirement Rolls

	Added to Rolls		Removed from Rolls		Rolls End of Year			% Increase	
		Annual		Annual		Annual	Average	in	in Average
	Number	Allowances	Number	Allowances	Number	Allowances	Annual Allowances	Annual Allowance	Annual Allowance
2014-2015									
Service Retirees	1,886	\$ 20,303,553	742	\$ 4,999,606	23,900	\$ 197,661,001	\$ 8,270	9.23 %	3.62 %
Disability Retirees	62	373,039	30	183,496	767	3,983,823	5,194	7.38	2.49
Beneficiaries	171	1,199,171	78	371,236	1,631	9,107,407	5,584	11.51	5.08
Note: Effective June 30, 2015, retirees and beneficiaries with their benefits on hold are included in the payment rolls at year-end.									
2013-2014									
Service Retirees	1,943	\$ 20,062,595	704	\$ 3,843,918	22,673	\$ 180,951,822	\$ 7,981	10.14 %	4.12 %
Disability Retirees	66	360,139	39	195,300	732	3,710,104	5,068	6.19	2.26
Beneficiaries	165	911,764	71	263,425	1,537	8,167,504	5,314	9.61	2.90
Note: 87 retirees and beneficiaries had their benefit on hold at June 30, 2014 and are not included in the payment rolls at the end of the year.									
2012-2013									
Service Retirees	1,674	\$ 16,712,855	694	\$ 4,168,985	21,434	\$ 164,297,318	\$ 7,665	8.23 %	3.27 %
Disability Retirees	69	408,169	29	158,081	705	3,493,840	4,956	9.21	3.01
Beneficiaries	164	1,155,936	77	357,536	1,443	7,451,611	5,164	13.14	6.32
Note: 92 retirees and beneficiaries had their benefit on hold at June 30, 2013 and are not included in the payment rolls at the end of the year.									
2011-2012									
Service Retirees	1,747	\$ 17,066,211	647	\$ 3,356,576	20,454	\$ 151,802,237	\$ 7,422	10.26 %	4.33 %
Disability Retirees	69	405,024	21	86,830	665	3,199,134	4,811	12.69	4.56
Beneficiaries	151	800,248	58	254,077	1,356	6,586,250	4,857	10.13	2.58
Note: 87 retirees and beneficiaries had their benefit on hold at June 30, 2012 and are not included in the payment rolls at the end of the year.									
2010-2011									
Service Retirees	1,675	\$ 16,740,804	595	\$ 2,955,819	19,354	\$ 137,682,745	\$ 7,114	9.86 %	3.73 %
Disability Retirees	73	411,908	31	165,052	617	2,838,986	4,601	9.53	2.06
Beneficiaries	114	672,098	73	276,872	1,263	5,980,471	4,735	7.08	3.61
Note: 94 retirees and beneficiaries had their benefit on hold at June 30, 2011 and are not included in the payment rolls at the end of the year.									
2009-2010									
Service Retirees	1,426	\$ 12,130,367	613	\$ 3,074,132	18,274	\$ 125,327,880	\$ 6,858	6.14 %	1.42 %
Disability Retirees	51	250,591	16	62,887	575	2,592,012	4,508	7.81	1.26
Beneficiaries	139	832,603	67	315,936	1,222	5,585,100	4,570	9.82	3.32

## PSRS Summary Plan Description

The Public School Retirement System of Missouri (PSRS) became operative July 1, 1946. It was established by an Act of the Missouri Legislature and is governed by Chapter 169 of the Revised Statutes of Missouri. Its purpose is to provide benefits to members and their dependents at retirement or in the event of death or disability prior to retirement.

PSRS is a defined benefit plan funded on an actuarial reserve basis, which establishes the availability of funds to pay benefits as prescribed by law. The System is established as an independent trust fund and is not subject to direction by any state agency. Administrative expenses are paid entirely out of investment earnings.

**Administration** – The administration of PSRS is vested in a seven-member Board of Trustees, composed of three elected PSRS members, one elected Public Education Employee Retirement System of Missouri (PEERS) member, and three appointed trustees. The four elected trustees are selected by vote of the members and retirees of both Systems. Two are elected each even-numbered calendar year to serve four-year terms. The three appointed trustees, one of whom must be a PSRS or a PEERS retiree, are named by the governor to serve four-year terms. The appointed trustees must be residents of school districts included in the System but not employees of such districts nor state employees nor state elected officials.

The Board appoints an executive director who is responsible for employment of the retirement office staff, routine operation of the System, and acts as an advisor to the Board on all matters pertaining to the System.

**Member Participation** – PSRS membership is automatic for certificated, full-time employees of public school districts in Missouri (except the St. Louis city and the Kansas City school districts), public two-year colleges in Missouri, PSRS and certain statewide non-profit educational associations that have previously elected to join. Non-profit educational associations are no longer allowed to join the System. Certificated, part-time employees whose services would qualify them for membership in PEERS are contributing members of PSRS unless PEERS membership is elected. The vast majority of PSRS members are not covered by Social Security. However, there are a few exceptions due to specific guidance from the Social Security

Administration. Those members who are also covered by Social Security contribute to PSRS at two-thirds the rate of other members and receive two-thirds benefits.

Members working in covered employment are considered active members. Such members contribute 14.5% of total retirement salary to PSRS. The contributions are deducted and remitted by the employer and are credited by PSRS to individual member accounts. Since July 1, 1989, member contributions have been tax-deferred for federal and state income tax purposes under IRS 414(h) (2). Contributions are not considered income for such purposes until they are paid as a lump-sum refund or monthly benefits.

Interest at a rate set each year by the Board of Trustees is credited to individual member accounts each June 30 on the previous June 30 balance. The interest rate set annually by the board, was 1% on June 30, 2015. Since PSRS is a defined benefit plan, benefits are based upon the member's final average salary and years of service. The amount of interest credited to a member's account has no bearing on the monthly benefit amount payable at retirement.

In addition to service earned for covered employment, members may purchase service in various categories including several types of leave, out-of-state school service, other public and private employment, active U.S. military duty, and service under the federal Uniformed Services Employment and Re-Employment Rights Act of 1994 (USERRA).

Members who have contributions on deposit with PSRS but are not working in covered employment are considered inactive members.

**Employer Participation** – The employers served by PSRS withhold members' contributions from salary payments and contribute an amount equal to those contributions at a current rate of 14.5% of payroll. Employer contributions and investment earnings on those funds are placed by PSRS in a general reserve account to pay monthly benefits to retirees and to beneficiaries of deceased members. Employers are responsible for remitting contributions promptly and for furnishing contribution information and new membership records to PSRS. Employers also provide needed data when members apply for monthly benefits or for refunds upon termination of employment.

**Survivor Benefits** – The designated beneficiary of a member who dies before retirement is eligible for a lump-sum refund of the member's contributions and

interest. If the beneficiary is an eligible dependent and the member dies while in covered employment with at least two years of service, or while eligible for disability retirement benefits, monthly survivor benefits based on a percentage of the member's salary for the last full year of covered service can be elected instead of a lump-sum refund. Monthly survivor benefits may also be payable to qualified dependents of an inactive member who has at least five years of service.

In lieu of a lump-sum refund or monthly survivor benefits, survivors with an insurable interest and beneficiaries of disability retirees may elect to receive monthly benefits under the Joint-and-Survivor 100% benefit plan. Such benefits are payable when the member would have been eligible for early or normal service retirement.

**Refund of Contributions** – Member contributions and interest are fully refundable upon termination of covered employment or death. All service and benefit rights are forfeited upon voluntary refund or automatic termination of membership.

A member may, upon returning to covered employment, reinstate the service forfeited through termination of a previous membership by repaying the money refunded plus interest.

**Membership Termination** – Membership is terminated by death, retirement, refund of contributions or absence from covered employment by a non-vested member for five consecutive school years.

**Disability Retirement Benefits** – Disability retirement benefits are payable to eligible members who have met service and eligibility requirements and who, because of permanent disability, are unable to earn a livelihood in any occupation. In most instances, the disability retirement benefit is calculated at 50% of the member's salary for the last full year of service.

**Service Retirement Benefits** – Service retirement benefits are payable to members who have terminated covered employment and have met certain eligibility requirements.

**Benefit Formula** – All service retirement benefits are based on a formula which multiplies final average salary by the applicable benefit factor, by the years of service and, in the case of early retirement, by an age-reduction factor. Final average salary is obtained by dividing the total salaries for the three highest consecutive years of service by 36 months to arrive at a monthly average; the

applicable factor is determined by the type of retirement eligibility; total service is the amount accumulated at retirement for covered employment and purchased service; and the age-reduction factor, when applicable, is determined by the age at retirement.

**Normal Retirement** – A member may retire with benefits calculated under the standard (2.5%) benefit factor at age 60 with five years of service, at any age with 30 years of service, or when a combination of age and service equals 80 or more. Between July 1, 2001 and July 1, 2014, a member could retire with a 2.55% benefit factor with 31 or more years of service.

**Early Retirement** – A member may retire with benefits calculated under the standard (2.5%) formula with an age-reduction factor applied, at age 55 with five years of service or at any age with 25 years of service, as long as he or she does not qualify for Rule of 80.

A special provision allows members under age 55 with 25.0 to 29.9 years of service to retire with benefits calculated under a modified benefit factor ranging from 2.2% to 2.4% with no age-reduction factor applied.

**Payment Options** – A retiring member may choose to receive the maximum benefits payable under the Single Life benefit plan, or may elect to receive a reduced benefit under one of three Joint-and-Survivor benefit plans or under one of two Term-Certain benefit plans, to provide survivor benefit coverage in varying degrees after the retiree's death.

Certain benefit minimums apply to normal or early retirement with 15 or more years of service. The minimums for 15 but fewer than 25 years of service are reduced if a Joint-and-Survivor or a Term-Certain benefit plan is elected and/or if an age-reduction factor is applicable because of early retirement. The minimums for 25 or more years of service are reduced only if a Joint-and-Survivor or a Term-Certain benefit plan is selected.

The Partial Lump Sum Option (PLSO) is available to qualified members. This option allows qualified members to choose to have their lifetime monthly benefits actuarially reduced in exchange for the right to also receive a one-time, lump-sum payment at retirement.

**Cost-of-Living Adjustments** – Cost-of-living adjustments (COLAs) are provided beginning the second January after retirement to service and disability retirees, and to Joint-and-Survivor and Term-Certain beneficiaries of deceased retirees. Lifetime COLAs are limited to 80% of the original retirement benefit.



The Department of Labor Consumer Price Index for Urban Consumers (CPI-U) for the previous fiscal year is used as a guideline for the annual COLA which is set by the Board. By law, if the change in CPI-U is 2% or more, the COLA must be at least 2%, but no more than 5%. If the change in CPI-U is between 0% and 2%, the Board may grant a COLA of 0% to 5%. If the change in CPI-U is less than 0%, no increase can be given. If it is more than 5%, the Board is required to give a 5% increase. Under the funding policies adopted by the Board in August 2011, a 2% COLA will be given whenever the change in CPI-U for the previous year is between 0% and 5%.

**Member Handbook – A *Member Handbook***

containing detailed information concerning the retirement program is available on our website or can be obtained from the retirement office upon request.

## PEERS Summary Plan Description

The Public Education Employee Retirement System of Missouri (PEERS) was established by an Act of the Missouri Legislature to begin operations on November 1, 1965, and is governed by Chapter 169 of the Revised Statutes of Missouri. Its purpose is to provide benefits to members and their dependents at retirement or in the event of death or disability prior to retirement.

PEERS is a defined benefit plan funded on an actuarial reserve basis, which establishes the availability of funds to pay benefits as prescribed by law. The System is established as an independent trust fund and is not subject to direction by any state agency. Administrative expenses are paid entirely out of investment earnings.

**Administration** – The law provides that the responsibility for the operation and administration of the retirement system is vested in the Public School Retirement System of Missouri (PSRS) Board of Trustees sitting as the Board of Trustees for PEERS. The Board is comprised of three elected PSRS members, one elected PEERS member and three appointed trustees. The four elected trustees are selected by vote of the members and retirees of both Systems. Two are elected each even-numbered calendar year to serve four-year terms. The three appointed trustees, one of whom must be a PSRS or a PEERS retiree, are named by the governor to serve four-year terms. The appointed trustees must be residents of school districts included in the System but not employees of such districts nor state employees nor state elected officials.

The Board appoints an executive director who is responsible for employment of the retirement office staff, routine operation of the System, and acts as an advisor to the Board on all matters pertaining to the System.

**Member Participation** – PEERS membership is automatic, regardless of position, for all persons not covered by PSRS who are employed for 20 or more hours a week on a regular basis in a position that normally requires at least 600 hours during the school term by the public school districts in Missouri (except the St. Louis city and the Kansas City school districts), public two-year colleges in Missouri (except St. Louis Community College), PEERS and statewide non-profit educational associations that have elected to join.

Members working in covered employment are considered active members. Such members contribute 6.86% of their total retirement salary to PEERS. The contributions are deducted by the employer and are credited by PEERS to individual member accounts. PEERS members are also covered by Social Security.

PEERS membership can be elected by employees with Missouri educator certificates who work in any position for 17 or more hours weekly but less than full time; however, PSRS membership is automatic if a PEERS election is not made. The election to join PEERS must be filed with the Board within 90 days after entering first time, part-time employment.

Since July 1, 1989, member contributions have been tax-deferred for federal and state income tax purposes under IRC 414(h)(2). Contributions are not considered as income for federal or state income tax purposes until they are paid in a lump-sum refund or in monthly benefits.

Individual accounts are maintained for all PEERS members. Interest is credited each June 30 on the previous June 30 balance. The interest rate, set annually by the Board, was 1% on June 30, 2015. Since PEERS is a defined benefit plan, benefits are based upon the member's final average salary and years of service. The amount of interest credited to a member's account has no bearing on the monthly benefit amount payable at retirement.

In addition to service earned for covered employment, members may purchase service in various categories including several types of leave, out-of-state school service, other public and private employment, active U.S. military duty, and service under the federal Uniformed Services Employment and Re-employment Rights Act of 1994 (USERRA).

Members who have contributions on deposit with PEERS but are not currently working in covered employment are considered inactive members.

**Employer Participation** – The employers served by PEERS withhold members' contributions from salary payments and contribute an amount equal to employee contributions at a current rate of 6.86% of payroll. Employer contributions and investment earnings on those funds are placed in a general reserve account to pay monthly benefits to retirees and to beneficiaries of deceased members. It is the responsibility of the employers to remit contributions promptly and for furnishing contribution information and new

membership records to PEERS. Employers also provide needed data when members apply for benefits or refund of contributions upon termination of employment.

**Survivor Benefits** – When a member dies before retirement, the designated beneficiary becomes eligible for a lump-sum refund of the employee's contributions and interest. In lieu of a lump-sum refund, survivors with an insurable interest and beneficiaries of disability retirees may elect to receive monthly benefits under the Joint-and-Survivor 100% benefit plan. Such benefits are payable when the member would have been eligible for early or normal service retirement.

**Refund of Contributions** – Member contributions and interest are fully refundable upon termination of covered employment or death. All service and benefit rights are forfeited upon voluntary refund or automatic termination of membership.

A member may, upon returning to covered employment, reinstate the service forfeited through termination of a previous membership by repaying the money refunded plus interest.

**Membership Termination** – Membership is terminated by death, retirement, refund of contributions or absence from covered employment by a non-vested member for five consecutive school years.

**Disability Retirement Benefits** – Disability retirement benefits are payable to members who have met service and eligibility requirements and who, because of permanent disability, are unable to earn a livelihood in any occupation. The disability retirement benefit is calculated at 90% of the normal service retirement benefit.

**Service Retirement Benefits** – Service retirement benefits are payable to members who have terminated covered employment and who have met certain eligibility requirements.

**Benefit Formula** – All service retirement benefits are based on a formula which multiplies final average salary by the applicable benefit factor, by the years of service and, in the case of early retirement, by an age-reduction factor. Final average salary is obtained by dividing the total salaries for the three highest consecutive years of service by 36 months to arrive at a monthly average; the applicable factor is determined by the type of retirement eligibility; total service is the amount accumulated at retirement for covered employment and purchased service; and the age-reduction factor, when applicable, is determined by the age at retirement.

Because of the conversion of the System from a formula integrated with Social Security to the present basis, a special “frozen benefit” is in effect for certain members for service prior to July 1, 1973.

**Normal Retirement** – A member may retire with benefits calculated under the standard (1.61%) formula at age 60 with five years of service, at any age with at least 30 years of service, and at the point where the member’s age plus service equals 80 or more (Rule of 80). A member may retire under the standard (1.61%) formula when the member qualifies for Rule of 80 or 30-and-Out and will receive an additional .8% multiplier until reaching minimum eligibility age for Social Security benefits (currently age 62).

**Early Retirement** – A member may retire with benefits calculated under the standard (1.61%) formula with an age-reduction factor applied at age 55 with five but fewer than 25 years of service, or at any age with 25 years of service, as long as he or she does not qualify for Rule of 80.

A special provision allows members under age 55 with 25.0 to 29.9 years of service to retire with benefits calculated under a modified benefit factor ranging from 1.51% to 1.59% with no age-reduction factor applied.

**Payment Options** – A retiring member may choose to receive the maximum benefits payable under the Single Life benefit plan, or may choose to receive a reduced benefit under one of three Joint-and-Survivor benefit plans or under one of two Term-Certain benefit plans, to provide survivor benefit coverage in varying degrees after the retiree’s death.

Another option, the Accelerated Payment Plan (APP), allows members to receive a higher PEERS benefit prior to minimum Social Security eligibility age (currently age 62). When the minimum Social Security eligibility age is attained, the member’s PEERS benefit is reduced and remains at a reduced level for the remainder of their retirement.

The Partial Lump Sum Option (PLSO) is available to qualified members. This option allows qualified members to choose to have their lifetime monthly benefits actuarially reduced in exchange for the right to also receive a one-time, lump-sum payment at retirement.

**Cost-of-Living Adjustments** – Cost-of-living adjustments (COLAs) are provided starting the fourth January after retirement to service and disability retirees, and to Joint-and-Survivor and Term-Certain beneficiaries of deceased retirees. Lifetime COLAs are limited to 80% of the original retirement benefit.

The Department of Labor Consumer Price Index for Urban Consumers (CPI-U) for the previous fiscal year is used as a guideline for the annual COLA which is set by the Board of Trustees. By law, if the change in CPI-U is 2% or more, the COLA must be at least 2%, but no more than 5%. If the change in CPI-U is between 0% and 2%, the Board may grant a COLA of 0% to 5%. If the change in CPI-U is less than 0%, no increase can be given. If it is more than 5%, the Board is required to give a 5% increase. Under the funding policies adopted by the Board in August 2011, a 2% COLA will be given whenever the change in CPI-U for the previous year is between 0% and 5%.

**Member Handbook** – A *Member Handbook* containing detailed information concerning the retirement program is available on our website or can be obtained from the retirement office upon request.

## PSRS and PEERS Summary of Actuarial Assumptions and Methods

The Board is responsible for the adoption of the Systems' Funding Policies and assumptions. A summary of the current Funding Policy is included in the Certification of Actuarial Results.

The actuarial assumptions and methods utilized for funding and financial report purposes differ slightly. The primary difference between the two methods is the fact that financial reporting requires the recognition of investment gains at market with no smoothing.

### Inflation

Inflation is assumed to be 2.50% per year (effective 6/30/11).

### Payroll Growth

Total payroll growth for PSRS is assumed to be 3.50% per year, consisting of 2.50% inflation, 0.50% additional inflation due to the inclusion of healthcare costs in pension earnings, and 0.50% of real wage growth (effective 6/30/11).

PSRS – Individual Salary Growth				
Service	General Inflation	Healthcare Inflation	Longevity	Total Increase
0	2.50%	0.50%	7.00%	10.00%
1-4	2.50%	0.50%	4.00%	7.00%
5	2.50%	0.50%	3.80%	6.80%
6	2.50%	0.50%	3.60%	6.60%
7	2.50%	0.50%	3.40%	6.40%
8	2.50%	0.50%	3.20%	6.20%
9	2.50%	0.50%	3.00%	6.00%
10	2.50%	0.50%	2.80%	5.80%
11	2.50%	0.50%	2.60%	5.60%
12	2.50%	0.50%	2.40%	5.40%
13	2.50%	0.50%	2.20%	5.20%
14	2.50%	0.50%	2.00%	5.00%
15	2.50%	0.50%	2.00%	5.00%
16	2.50%	0.50%	1.90%	4.90%
17	2.50%	0.50%	1.90%	4.90%
18	2.50%	0.50%	1.80%	4.80%
19	2.50%	0.50%	1.80%	4.80%
20	2.50%	0.50%	1.70%	4.70%
21	2.50%	0.50%	1.70%	4.70%
22	2.50%	0.50%	1.60%	4.60%
23	2.50%	0.50%	1.60%	4.60%
24	2.50%	0.50%	1.50%	4.50%
25	2.50%	0.50%	1.50%	4.50%
26	2.50%	0.50%	1.40%	4.40%
27	2.50%	0.50%	1.30%	4.30%
28	2.50%	0.50%	1.20%	4.20%
29	2.50%	0.50%	1.10%	4.10%
30+	2.50%	0.50%	1.00%	4.00%

Total payroll growth for PEERS is assumed to be 3.75% per year, consisting of 2.50% inflation, 0.75% additional inflation due to the inclusion of healthcare costs in pension earnings, and 0.50% of real wage growth (effective 6/30/11).

### Individual Salary Growth

Salaries are assumed to increase each year between 4% and 10% depending on service and including general inflation of 2.50%, plus healthcare inflation of 0.50% for PSRS (since healthcare costs are included in pension earnings).

Salaries are assumed to increase each year between 5% and 12% depending on service and including general inflation of 2.50%, plus healthcare inflation and 0.75% for PEERS (since healthcare costs are included in pension earnings) (effective 6/30/11).

PEERS – Individual Salary Growth				
Service	General Inflation	Healthcare Inflation	Longevity	Total Increase
0	2.50%	0.75%	8.75%	12.00%
1	2.50%	0.75%	4.00%	7.25%
2	2.50%	0.75%	3.50%	6.75%
3	2.50%	0.75%	3.25%	6.50%
4	2.50%	0.75%	3.00%	6.25%
5	2.50%	0.75%	2.90%	6.15%
6	2.50%	0.75%	2.80%	6.05%
7	2.50%	0.75%	2.70%	5.95%
8	2.50%	0.75%	2.60%	5.85%
9	2.50%	0.75%	2.50%	5.75%
10	2.50%	0.75%	2.40%	5.65%
11	2.50%	0.75%	2.30%	5.55%
12	2.50%	0.75%	2.20%	5.45%
13	2.50%	0.75%	2.10%	5.35%
14	2.50%	0.75%	2.00%	5.25%
15	2.50%	0.75%	1.95%	5.20%
16	2.50%	0.75%	1.90%	5.15%
17	2.50%	0.75%	1.85%	5.10%
18	2.50%	0.75%	1.80%	5.05%
19	2.50%	0.75%	1.75%	5.00%
20+	2.50%	0.75%	1.75%	5.00%

## Investment Return

It is assumed that investments of the System will return a yield of 8.0% per year, net of System expenses (investment and administrative) (effective 1980).

## Cost-of-Living Adjustments

The cost-of-living adjustment (COLA) assumed in the valuation is 2.0% per year, based on the current policy of the Board to grant a 2.0% COLA whenever annual inflation, as measured by the CPI-U index for a fiscal year, increases between 0.0% and 5.0%. The COLA applies to service retirements and beneficiary annuities. The COLA does not apply to the benefits for in-service death payable to spouses (where the spouse is over age 60), and does not apply to the spouse with children pre-retirement survivor benefit, the dependent children pre-retirement survivor benefit, or the dependent parent pre-retirement survivor benefit. The total lifetime COLA cannot exceed 80% of the original benefit. Future COLAs for current benefit recipients reflect actual cumulative adjustments granted at the time of valuation (effective 6/30/11).

## Mortality Rates

Mortality rates for active members are based on the RP 2000 Mortality Table, set back one year for males and six years for females, then projected to 2016 using Scale AA. Illustrative rates per 1,000 members at various ages are as follows (effective 6/30/11):

PSRS and PEERS Active Member Mortality		
Age	Male	Female
20	0.244	0.131
30	0.380	0.171
40	0.898	0.342
50	1.492	0.782
60	4.593	2.237
70	15.549	7.955
80	49.322	22.752
90	156.083	66.254
100	324.963	179.896
110	400.000	279.055

Mortality rates for non-disabled retirees and beneficiaries are based on the RP 2000 Mortality Table, set back one year for both male and female members of PSRS and one year for male members of PEERS, then projected to 2016 using Scale AA. Illustrative rates per 1,000 members at various ages are as follows (effective 6/30/11):

PSRS Service Retiree, Beneficiary and Survivor Mortality		
Age	Male	Female
40	0.898	0.509
50	1.492	1.178
60	4.593	4.099
70	15.549	13.715
80	49.322	37.094
90	156.083	113.562
100	324.963	227.712
110	400.000	351.544

PEERS Service Retiree, Beneficiary and Survivor Mortality		
Age	Male	Female
20	0.263	0.148
30	0.461	0.225
40	1.004	0.554
50	1.831	1.274
60	5.930	4.665
70	19.292	15.452
80	61.340	41.002
90	187.360	125.502
100	352.933	233.696
110	400.000	364.617

Mortality rates for disabled retirees are based on the RP 2000 Disabled Retiree Mortality Table. Illustrative rates per 1,000 members at various ages are as follows (effective 6/30/11):

PSRS and PEERS Disability Retiree Mortality		
Age	Male	Female
40	22.571	7.450
50	28.975	11.535
60	42.042	21.839
70	62.583	37.635
80	109.372	72.312
90	183.408	140.049
100	344.556	237.467
110	400.000	364.617



## Retirement Rates

Prior to July 1, 2014, retirement is assumed in accordance with the following rates per 1,000 eligible PSRS members (effective 6/30/11):

PSRS Active Member Retirement Prior to July 1, 2014												
Age	Years of Service											
	<=20	21	22	23	24	25	26	27	28	29	30	>=31
<50	0	0	0	0	0	50	50	50	50	50	200	400
50	0	0	0	0	0	50	50	50	50	50	200	400
51	0	0	0	0	0	50	50	50	50	200	200	400
52	0	0	0	0	0	50	50	50	200	200	200	400
53	0	0	0	0	0	50	50	300	200	200	200	400
54	0	0	0	0	0	50	300	200	200	200	200	400
55	50	50	50	50	50	400	200	200	200	200	200	400
56	50	50	50	50	400	200	200	200	200	200	200	400
57	50	50	50	400	200	200	200	200	200	200	200	400
58	50	50	400	200	200	200	200	200	200	200	200	400
59	50	400	200	200	200	200	200	200	200	200	200	400
60	150	150	150	150	150	200	200	200	200	200	200	400
61	150	150	150	150	150	200	200	200	200	200	200	400
62	150	150	150	150	150	200	200	200	200	200	200	400
63	150	150	150	150	150	200	200	200	200	200	200	400
64	150	150	150	150	150	200	200	200	200	200	200	400
65	250	250	250	250	250	400	400	400	400	400	400	400
66	250	250	250	250	250	300	300	300	300	300	300	400
67	250	250	250	250	250	300	300	300	300	300	300	400
68	250	250	250	250	250	300	300	300	300	300	300	400
69	250	250	250	250	250	300	300	300	300	300	300	400
>70	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

After June 30, 2014, retirement is assumed in accordance with the following rates per 1,000 PSRS eligible members (effective 6/30/11):

PSRS Active Member Retirement After June 30, 2014												
Age	Years of Service											
	<=20	21	22	23	24	25	26	27	28	29	30	>=31
<50	0	0	0	0	0	0	0	0	0	0	450	450
50	0	0	0	0	0	0	0	0	0	0	450	450
51	0	0	0	0	0	0	0	0	0	200	450	450
52	0	0	0	0	0	0	0	0	200	200	450	450
53	0	0	0	0	0	0	0	300	200	200	450	450
54	0	0	0	0	0	0	300	200	200	200	450	450
55	50	50	50	50	50	400	200	200	200	200	450	450
56	50	50	50	50	400	200	200	200	200	200	450	450
57	50	50	50	400	200	200	200	200	200	200	450	450
58	50	50	400	200	200	200	200	200	200	200	450	450
59	50	400	200	200	200	200	200	200	200	200	450	450
60	150	150	150	150	150	200	200	200	200	200	450	450
61	150	150	150	150	150	200	200	200	200	200	450	450
62	150	150	150	150	150	200	200	200	200	200	450	450
63	150	150	150	150	150	200	200	200	200	200	450	450
64	150	150	150	150	150	200	200	200	200	200	450	450
65	250	250	250	250	250	400	400	400	400	400	450	450
66	250	250	250	250	250	300	300	300	300	300	450	450
67	250	250	250	250	250	300	300	300	300	300	450	450
68	250	250	250	250	250	300	300	300	300	300	450	450
69	250	250	250	250	250	300	300	300	300	300	450	450
70	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

PEERS retirement is assumed in accordance with the following rates per 1,000 eligible members (effective 6/30/11):

PEERS Retirement Rates							
Age	Years of Service						
	<=25	25	26	27	28	29	30+
<50	0	50	50	50	50	50	150
50	0	50	50	50	50	50	250
51	0	50	50	50	50	250	150
52	0	50	50	50	250	150	150
53	0	50	50	250	150	150	150
54	0	50	250	150	150	150	150
55	30	270	170	170	170	170	170
56	30	170	170	170	170	170	170
57	30	170	170	170	170	170	170
58	30	170	170	170	170	170	170
59	30	170	170	170	170	170	170
60	160	160	160	160	160	160	160
61	100	100	100	100	100	100	100
62	240	240	240	240	240	240	240
63	200	200	200	200	200	200	200
64	140	140	140	140	140	140	140
65	260	260	260	260	260	260	260
66	200	200	200	200	200	200	200
67	200	200	200	200	200	200	200
68	200	200	200	200	200	200	200
69	200	200	200	200	200	200	200
70	200	200	200	200	200	200	200
71	200	200	200	200	200	200	200
72	200	200	200	200	200	200	200
73	200	200	200	200	200	200	200
74	200	200	200	200	200	200	200
75+	1000	1000	1000	1000	1000	1000	1000

## Refund Rates

Termination of membership prior to eligibility for retirement from all causes other than death, disability or retirement, whether resulting in a refund or a deferred benefit, is assumed in accordance with the following illustrative rates per 1,000 members (2006).

PSRS	
Years of Service	Rate
0	190.0
1	105.0
2	85.0
3	73.0
4	62.0
5	52.0
10	23.0
15	12.0
20	5.0
25+	0.0

PEERS	
Years of Service	Rate
0	300.0
1	220.0
2	150.0
3	120.0
4	100.0
5	81.0
10	48.0
15	33.0
20	18.0
25+	0.0

## Refund of Contributions

It is assumed that 88% of those leaving after earning five years of service with PSRS leave their contributions in the fund and receive a vested benefit. The remaining 12% are assumed to take an immediate refund of their contributions, thus forfeiting their vested retirement benefit. If the present value of the deferred benefit is less than the member account balance, the member's account balance is valued (effective 6/30/11).

It is assumed that 80% of those leaving after earning five years of service with PEERS leave their contributions in the fund and receive a vested benefit. The remaining 20% are assumed to take an immediate refund of their contributions, thus forfeiting their vested retirement benefit. If the present value of the deferred benefit is less than the member account balance, the member's account balance is valued (effective 6/30/11).

It is assumed that 100% of those leaving prior to earning five years of service will take an immediate refund of their contributions.

## Disability Rates

Retirement for disability prior to age 60 is assumed in accordance with the following illustrative rates per 1,000 eligible members (effective 6/30/11):

PSRS	
Age	Rates
25	0.017
30	0.080
35	0.160
40	0.320
45	0.610
50	0.960
55	1.310

PEERS	
Age	Rates
30	0.080
35	0.160
40	0.320
45	0.640
50	1.040
55	1.680
	0.000

## Interest on Member Accounts

1.00% per annum (6/30/10).

## Service Purchases

A 2.0% load is added to the normal cost to account for anticipated losses resulting from service purchases and reinstatements (effective 6/30/11).

## Provisions for Expenses

There is no specific provision for expenses. The implicit assumption is that administrative expenses are paid from investment income in excess of 8.0% per year (effective 1980).

## Dependent Assumptions

(Effective 6/30/11)

- Eighty percent of male members and 70% of female members are assumed to be married.
- Beneficiaries are assumed to be of the opposite sex from the member.
- Male and female members are assumed to be four years older than their beneficiary.

## Joint-and-Survivor Election

To recognize the subsidy present in the Joint-and-Survivor reduction factors calculated without provision for cost-of-living adjustments, the active member costs resulting from all decrements except disability and refunds were loaded by 0.4%.

## Survivor Benefits (PSRS only)

All active members under age 50 are assumed to have two dependent children. Each child is assumed to receive payments of \$860 per month for 18 years if the member is under age 32, and grading down to zero years if the member is age 50 (effective 6/30/11).

## Return of Unused Member Account Balance

Under the Single Life benefit plan, any unused balance of contributions and interest in the member account balance at the time of death is paid in a lump sum to a designated beneficiary. This benefit is approximated with a five-year certain benefit.

## Actuarial Cost Method

The actuarial cost method is Entry Age Normal-Level Percent of Payroll.

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date (effective 1947).

## Asset Valuation Method

The actuarial value of assets is a smoothed value of assets. The actuarial value for a year is computed by taking the actuarial value at June 30 of the prior year, subtracting all expenses (including benefit payments), and adding contributions and expected investment return at 8% of actuarial value of assets. The difference between the actual returns at market value for the year and expected returns is determined. Twenty percent of that difference is added to the actuarial value along with corresponding amounts from each of the prior four years. The actuarial value of assets was reset to market value at June 30, 2003 (effective 1994).

## Amortization of Unfunded Actuarial Accrued Liability

Gains and losses occurring from census experience different than assumed and assumption changes are amortized over a 30-year period as a level percent of payroll. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period. The purpose of the method is to give a smooth progression of the costs from year to year and, at the same time, provide for an orderly funding of the unfunded liabilities. Increases or decreases in the actuarial accrued liability caused by changes in the benefit provisions are amortized over 20 years, as determined in the 2007 session of the Legislature.

The method for amortizing the unfunded actuarial accrued liability was changed from a rolling 30-year method to the closed 30-year method described above effective June 30, 2011.

*Note: Dates reflect the effective date as adopted by the Board of Trustees. The most recent assumption analysis was performed as of June 30, 2011. The revised assumptions were used beginning with the June 30, 2011 valuation. The next review of assumptions is scheduled for 2016.*



## Financial Security

### Peace of Mind – Knowing We are Here for You

Defined Benefit plans like PSRS and PEERS are designed to provide strong, stable and secure lifetime retirement benefits for members like you. Unlike retirement savings in Defined Contribution (DC) retirement accounts such as 401(k) or 403(b) plans, your PSRS/PEERS benefits cannot be lost in a stock market downturn and will be there when you need them. And, rest assured, we are here when you need us, too. Let us know how we can serve you, both before and during your retirement. We are here to help you find *your peace of mind* in retirement.



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## Statistical Summary

### Benefit Recipients

The largest percentage of the Systems' benefit recipients are service retirees. Service retirement benefits are payable to members who have met age and service requirements. The number of PSRS service retirees on the payment rolls increased by 1,638 from 49,707 at June 30, 2014 to 51,345 at June 30, 2015. The number of PEERS service retirees on the payment rolls increased by 1,144 from 22,756 at June 30, 2014 to 23,900 at June 30, 2015.

Disability benefits in PSRS and PEERS are paid to members who are unable to earn a livelihood due to permanent disability and who have met certain eligibility requirements. The number of PSRS disability retirees on the payment rolls increased by 33 from 859 at June 30, 2014 to 892 at June 30, 2015. The number of PEERS disability retirees on the payment rolls increased by 32 from 735 at June 30, 2014 to 767 at June 30, 2015.

In both PSRS and PEERS, beneficiary payments are available to survivors if the retiree elected this option. Three Joint-and-Survivor benefit plans and two Term-Certain benefit plans are available. In PSRS, survivor benefits are also available to designated beneficiaries of members who die before retirement.

The charts on page 108 detail the number of benefit recipients by type and monthly benefit amount for each System.

### Pension Funding

An unfunded actuarial accrued liability (UAAL) for pension benefits generally represents the difference between the present value of all benefits estimated to be payable to plan members as a result of their age, salary, and service through the valuation date and the actuarial value of plan assets available to pay those benefits. This amount changes over time as a result of changes in accrued benefits, pay levels, rates of return on investments, changes in actuarial assumptions, and changes in the demographics of the employee base. Each year an outside actuary performs a valuation to determine the present value of the benefits payable (actuarial accrued liability) and compares this to the assets available to arrive at the funded status of the Systems.

The charts on page 116 show a comparison of the assets and liabilities of the Systems over time. At June 30, 2015, PSRS was 83.9% pre-funded and PEERS was 86.8% pre-funded. These percentages have increased from the June 30, 2014 pre-funded percentages of 82.8% for PSRS and 85.1% for PEERS.

### Changes in Fiduciary Net Position

The charts on page 109 detail a 10-year history of the additions (revenue) and deductions (expenses) of the Systems.

Other charts in this section detail demographic information concerning our members and employers.

The data in this section was derived from internal sources and the annual actuarial valuation reports.

**PSRS Summary of Benefit Recipients By Type As of June 30, 2015**

Amount of Monthly Benefit	Service Retirement	Disability Retirement	Beneficiary Recipients				Total
			Disability	Survivors	Beneficiary	Term-Certain	
<\$1,000	4,368	25	124	425	367	4	5,313
\$1,000 - \$1,999	6,095	357	71	72	785	3	7,383
\$2,000 - \$2,999	10,390	380	20	2	805	7	11,604
\$3,000 - \$3,999	12,637	114	3	-	562	-	13,316
\$4,000 - \$4,999	9,525	14	1	-	370	2	9,912
\$5,000 - \$5,999	5,096	1	-	-	156	1	5,254
\$6,000+	3,234	1	-	-	104	-	3,339
<b>Total</b>	<b>51,345</b>	<b>892</b>	<b>219</b>	<b>499</b>	<b>3,149</b>	<b>17</b>	<b>56,121</b>

**PEERS Summary of Benefit Recipients By Type As of June 30, 2015**

Amount of Monthly Benefit	Service Retirement	Disability Retirement	Beneficiary Recipients				Total
			Disability	Survivors*	Beneficiary	Term-Certain	
<\$500	12,971	528	177	-	915	20	14,611
\$500 - \$999	5,770	201	28	-	324	11	6,334
\$1,000 - \$1,999	3,837	38	2	-	127	-	4,004
\$2,000 - \$2,999	897	-	-	-	16	1	914
\$3,000 - \$3,999	272	-	-	-	10	-	282
\$4,000+	153	-	-	-	-	-	153
<b>Total</b>	<b>23,900</b>	<b>767</b>	<b>207</b>	<b>-</b>	<b>1,392</b>	<b>32</b>	<b>26,298</b>

\* Benefit not available in PEERS.

## PSRS Schedule of Changes in Fiduciary Net Position, Last 10 Fiscal Years

(Dollar amounts in thousands)

	Fiscal Year									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Additions by source</b>										
Member contributions	\$ 502,980	\$ 514,163	\$ 572,810	\$ 599,582	\$ 636,633	\$ 638,357	\$ 620,214	\$ 665,926	\$ 679,618	\$ 689,187
Employer contributions	429,579	472,217	521,242	563,454	594,326	594,732	658,936	634,040	643,763	656,925
Investment income	2,235,836	4,125,164	(1,385,701)	(5,301,374)	2,723,032	5,018,519	449,822	3,378,531	4,927,193	1,447,144
Other income	264	280	370	627	867	930	441	20	6	26
<b>Total additions by source</b>	<b>3,168,659</b>	<b>5,111,824</b>	<b>(291,279)</b>	<b>(4,137,711)</b>	<b>3,954,858</b>	<b>6,252,538</b>	<b>1,729,413</b>	<b>4,678,517</b>	<b>6,250,580</b>	<b>2,793,282</b>
<b>Deductions by type</b>										
<i>Monthly benefits</i>										
Service retirement	1,152,217	1,254,164	1,363,571	1,490,693	1,584,382	1,674,931	1,775,305	1,880,783	1,999,520	2,102,511
Service retirement -PLSO	40,177	52,122	59,793	74,042	52,117	69,956	69,392	61,062	58,849	37,191
Disability	14,297	14,982	15,599	16,355	17,284	18,406	19,640	21,120	22,138	23,447
Beneficiary	54,148	59,295	64,011	70,518	75,922	82,327	85,894	92,799	100,040	107,109
<i>Lump-sum refunds</i>										
Death	7,188	6,801	7,058	7,274	7,075	7,763	9,295	8,344	7,123	7,712
Withdrawal/transfers	29,206	37,209	39,243	39,134	41,084	45,876	45,161	47,051	48,799	48,226
Administrative expenses/other	6,754	7,113	8,074	10,135	10,430	8,839	8,135	8,714	8,919	10,015
<b>Total deductions by type</b>	<b>1,303,987</b>	<b>1,431,686</b>	<b>1,557,349</b>	<b>1,708,151</b>	<b>1,788,294</b>	<b>1,908,098</b>	<b>2,012,822</b>	<b>2,119,873</b>	<b>2,245,388</b>	<b>2,336,211</b>
<b>Changes in fiduciary net position</b>	<b>\$ 1,864,672</b>	<b>\$ 3,680,138</b>	<b>\$ (1,848,628)</b>	<b>\$ (5,845,862)</b>	<b>\$ 2,166,564</b>	<b>\$ 4,344,440</b>	<b>\$ (283,409)</b>	<b>\$ 2,558,644</b>	<b>\$ 4,005,192</b>	<b>\$ 457,073</b>

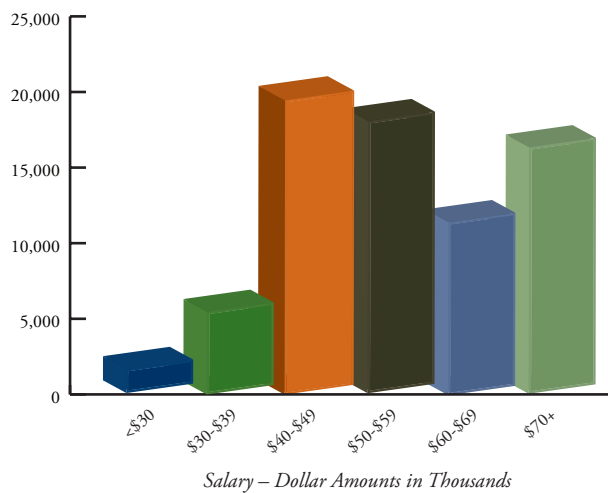
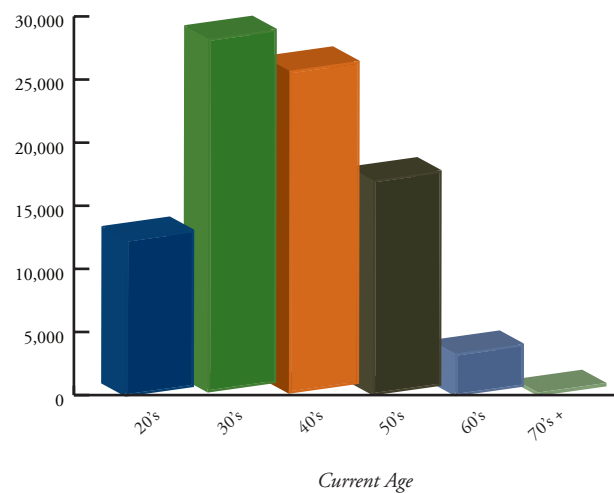
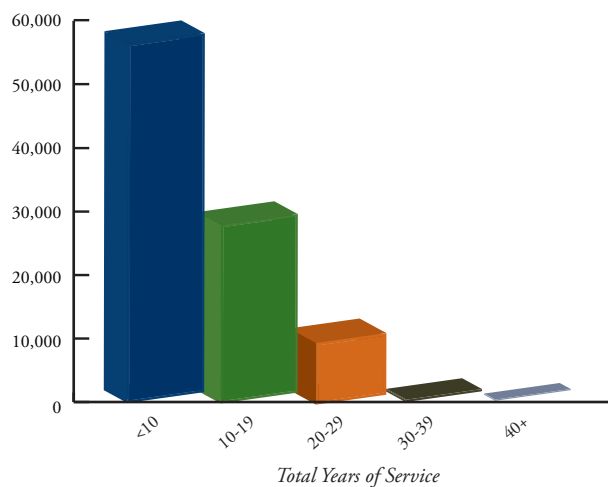
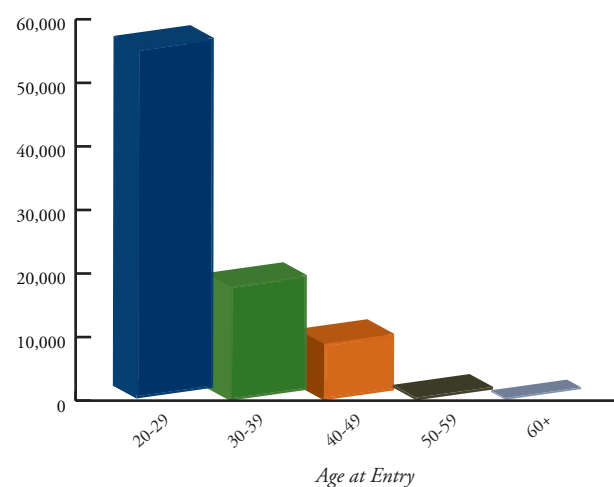
## PEERS Schedule of Changes in Fiduciary Net Position, Last 10 Fiscal Years

(Dollar amounts in thousands)

	Fiscal Year									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Additions by source</b>										
Member contributions	\$ 68,018	\$ 73,071	\$ 81,370	\$ 89,427	\$ 95,924	\$ 95,792	\$ 95,095	\$ 103,271	\$ 106,430	\$ 110,444
Employer contributions	61,746	69,235	77,989	85,916	91,479	90,816	101,930	97,059	100,690	103,624
Investment income	197,629	373,198	(130,619)	(489,552)	261,135	502,934	39,774	353,729	544,154	163,718
Other income	3	-	-	1	-	-	-	-	1	2
<b>Total additions by source</b>	<b>327,396</b>	<b>515,504</b>	<b>28,740</b>	<b>(314,208)</b>	<b>448,538</b>	<b>689,542</b>	<b>236,799</b>	<b>554,059</b>	<b>751,275</b>	<b>377,788</b>
<b>Deductions by type</b>										
<i>Monthly benefits</i>										
Service retirement	84,664	93,716	104,352	115,757	124,928	136,912	150,334	163,134	179,262	195,980
Service retirement -PLSO	2,487	3,454	3,133	3,676	2,972	5,178	7,191	5,006	5,971	6,576
Disability	1,840	1,968	2,125	2,353	2,514	2,798	3,057	3,430	3,665	3,917
Beneficiary	3,670	4,044	4,454	4,881	5,382	5,881	6,363	7,094	7,847	8,769
<i>Lump-sum refunds</i>										
Death	542	816	675	765	790	1,047	1,113	1,202	1,063	1,418
Withdrawal/transfers	11,502	12,883	14,833	14,908	15,921	17,776	17,357	17,434	18,817	18,410
Administrative expenses/other	4,358	4,427	4,682	5,440	5,280	5,611	5,591	4,803	4,840	5,629
<b>Total deductions by type</b>	<b>109,063</b>	<b>121,308</b>	<b>134,254</b>	<b>147,780</b>	<b>157,787</b>	<b>175,203</b>	<b>191,006</b>	<b>202,103</b>	<b>221,465</b>	<b>240,699</b>
<b>Changes in fiduciary net position</b>	<b>\$ 218,333</b>	<b>\$ 394,196</b>	<b>\$ (105,514)</b>	<b>\$ (461,988)</b>	<b>\$ 290,751</b>	<b>\$ 514,339</b>	<b>\$ 45,793</b>	<b>\$ 351,956</b>	<b>\$ 529,810</b>	<b>\$ 137,089</b>

**PSRS Summary of Changes in Membership During 2014-2015**

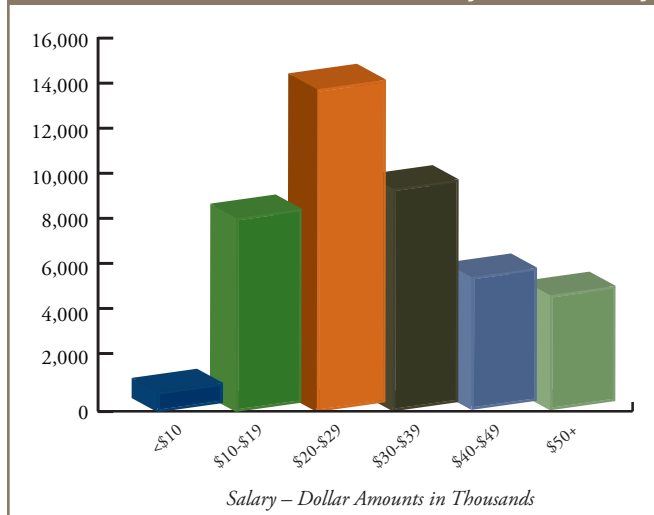
	<b>Male</b>	<b>Female</b>	<b>Total</b>
Membership July 1, 2014	20,877	72,542	93,419
New members added	1,495	4,866	6,361
Less:			
Service retirements	512	2,058	2,570
Disability retirements	13	61	74
Withdrawals	657	1,782	2,439
Deaths	32	47	79
Memberships terminated	0	0	0
Other	10	30	40
Total removed	1,224	3,978	5,202
Net change in membership 2014-2015	271	888	1,159
Membership June 30, 2015	21,148	73,430	94,578

**2014-2015 PSRS Active Members by Annual Salary**

**2014-2015 PSRS Members by Current Age**

**2014-2015 PSRS Members by Total Years of Service**

**2014-2015 PSRS Member Age at Entry Into System**


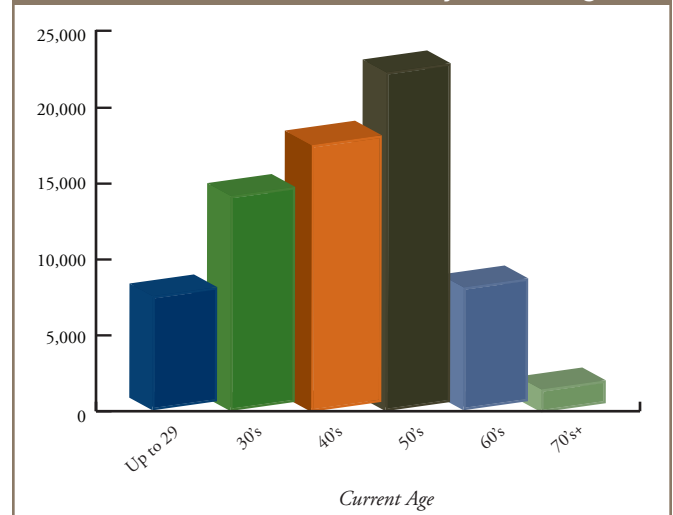
PEERS Summary of Changes in Membership During 2014-2015

	Male	Female	Total
Membership July 1, 2014	21,030	55,970	77,000
New members added	2,352	5,613	7,965
Less:			
Service retirements	500	1,384	1,884
Disability retirements	22	39	61
Withdrawals	1,471	3,490	4,961
Deaths	38	103	141
Memberships terminated	0	0	0
Other	13	42	55
Total removed	2,044	5,058	7,102
Net change in membership 2014-2015	308	555	863
Membership June 30, 2015	21,338	56,525	77,863

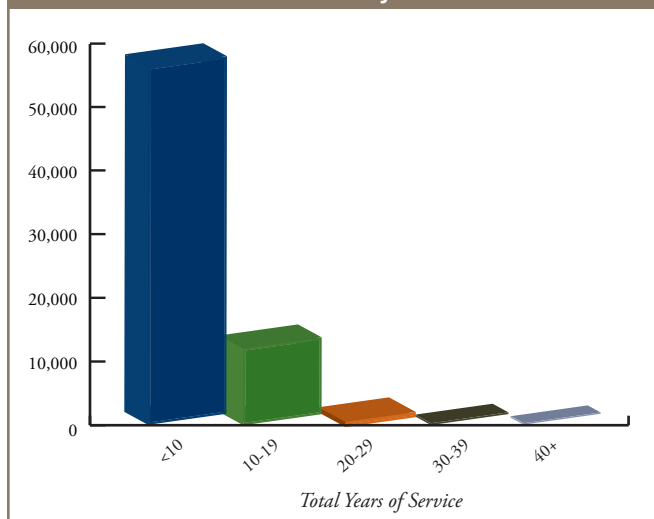
2014-2015 PEERS Active Members by Annual Salary



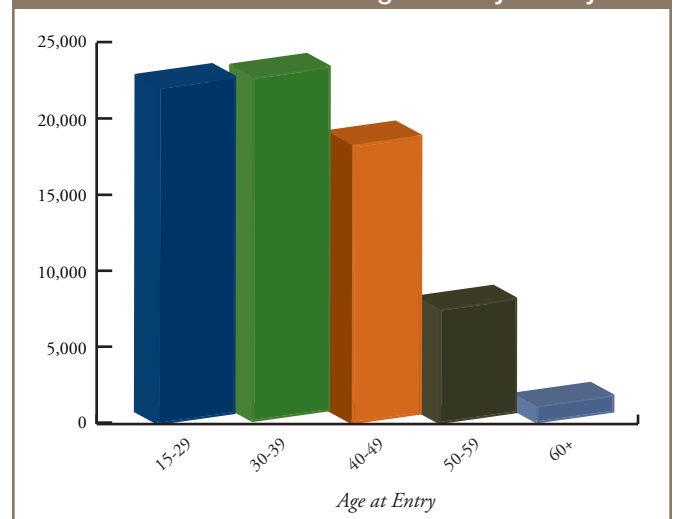
2014-2015 PEERS Members by Current Age



2014-2015 PEERS Members by Total Years of Service



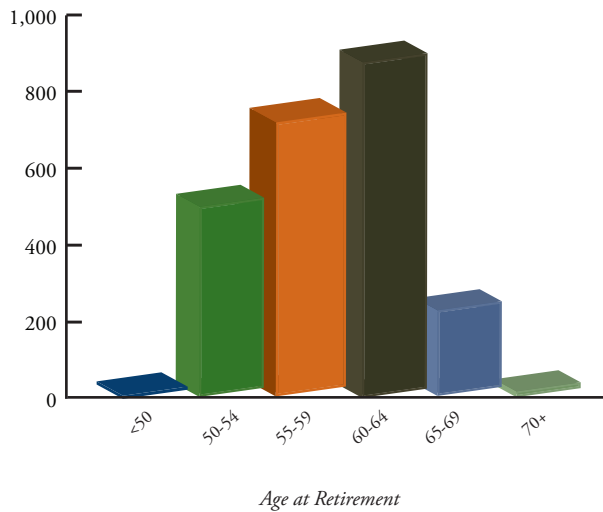
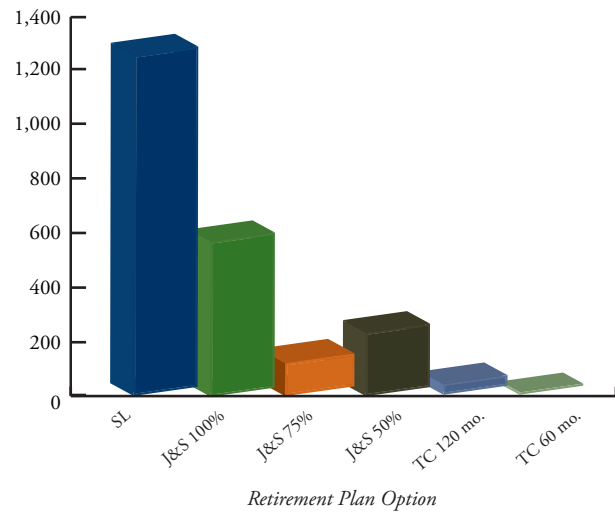
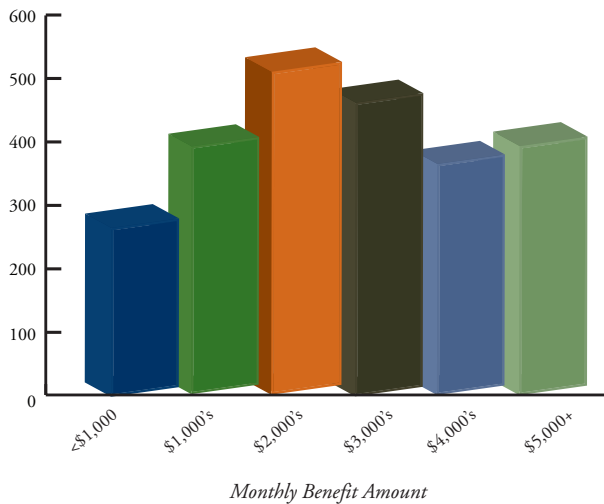
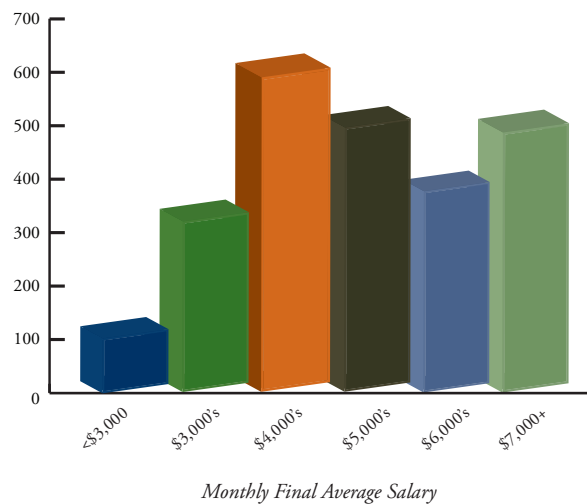
2014-2015 PEERS Member Age at Entry Into System





**PSRS 2014-2015 New Service Retirees**

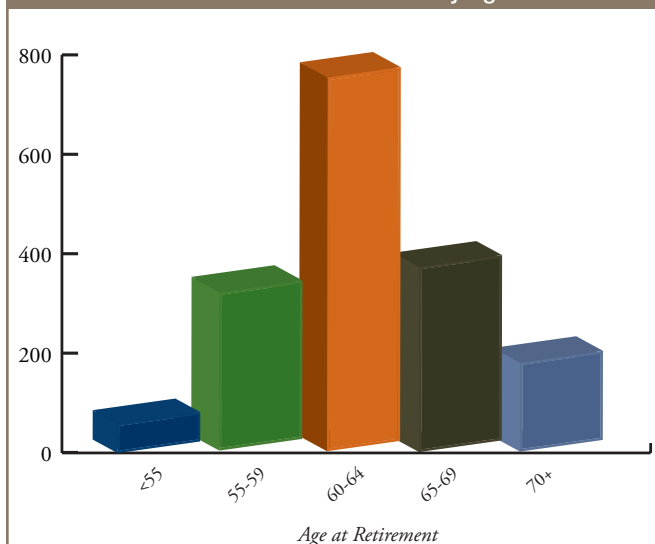
	Service Retirees	Disability Retirees	Beneficiaries
Retirees July 1, 2014	49,707	859	3,920
Added during the year	2,570	74	351
Died during the Year	-933	-41	-167
Other	1	0	-220
Retirees June 30, 2015	51,345	892	3,884

**2014-2015 PSRS New Service Retirees by Age at Retirement**

**2014-2015 PSRS New Service Retirees by Retirement Plan Option**

**2014-2015 PSRS New Service Retirees by Single Life Benefit Amount**

**2014-2015 PSRS New Service Retirees by Final Average Salary**


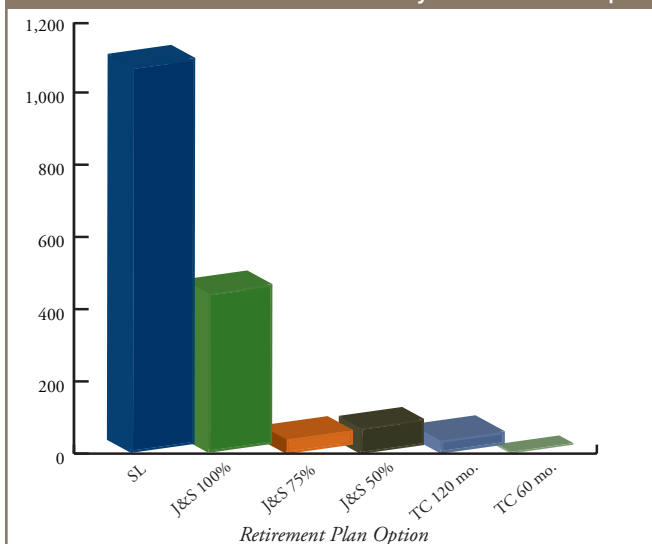
## PEERS 2014-2015 New Service Retirees

	Service Retirees	Disability Retirees	Beneficiaries
Retirees July 1, 2014	22,756	735	1,538
Added during the Year	1,884	61	171
Died during the Year	-742	-30	-72
Other	2	1	-6
Retirees June 30, 2015	23,900	767	1,631

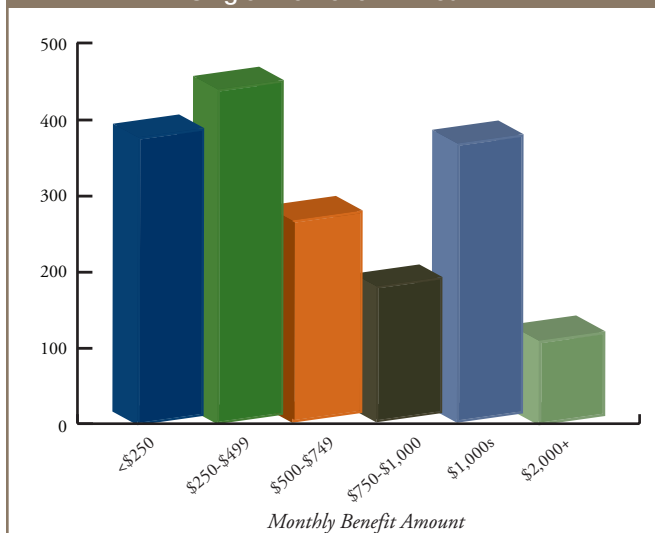
2014-2015 PEERS New Service Retirees by Age at Retirement



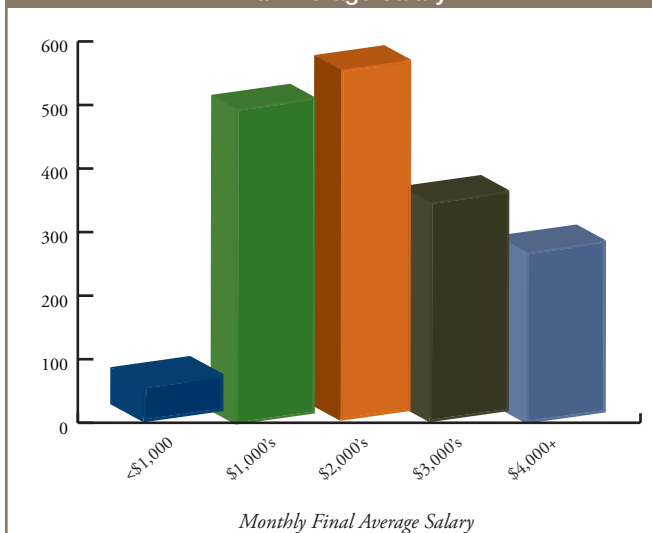
2014-2015 PEERS New Service Retirees by Retirement Plan Option



2014-2015 PEERS New Service Retirees by Single Life Benefit Amount



2014-2015 PEERS New Service Retirees by Final Average Salary



**PSRS Schedule of Average Benefit Payments to New Service Retirees**

	Years of Service							
	5 - 9.9	10 - 14.9	15 - 19.9	20 - 24.9	25 - 29.9	30 - 34.9	35 - 39.9	40+
<b>2014-2015</b>								
Average monthly benefit	\$ 695	\$ 1,249	\$ 1,960	\$ 2,906	\$ 3,863	\$ 4,659	\$ 5,565	\$ 5,459
Average final average salary	4,342	4,581	5,004	5,562	6,091	6,324	6,521	6,418
Number of retirees	255	308	313	487	677	469	46	15
<b>2013-2014</b>								
Average monthly benefit	\$ 697	\$ 1,299	\$ 2,135	\$ 3,108	\$ 3,955	\$ 5,147	\$ 6,319	\$ 6,601
Average final average salary	4,257	4,385	5,024	5,557	5,930	6,396	6,730	6,601
Number of retirees	274	260	317	483	746	696	101	11
<b>2012-2013</b>								
Average monthly benefit	\$ 695	\$ 1,327	\$ 2,035	\$ 3,143	\$ 3,927	\$ 4,998	\$ 6,739	\$ 6,033
Average final average salary	4,067	4,554	4,818	5,609	5,896	6,212	7,218	6,033
Number of retirees	233	263	286	483	692	593	79	13
<b>2011-2012</b>								
Average monthly benefit	\$ 607	\$ 1,261	\$ 1,995	\$ 2,980	\$ 3,824	\$ 4,893	\$ 6,071	\$ 5,262
Average final average salary	3,946	4,305	4,795	5,317	5,713	6,070	6,506	5,262
Number of retirees	248	265	293	531	723	767	81	18
<b>2010-2011</b>								
Average monthly benefit	\$ 661	\$ 1,262	\$ 1,969	\$ 3,010	\$ 3,792	\$ 4,815	\$ 6,231	\$ 6,595
Average final average salary	4,074	4,298	4,754	5,366	5,642	5,974	6,662	6,595
Number of retirees	267	322	289	540	733	832	126	13
<b>2009-2010</b>								
Average monthly benefit	\$ 556	\$ 1,123	\$ 1,915	\$ 2,865	\$ 3,660	\$ 4,836	\$ 6,133	\$ 5,639
Average final average salary	3,396	3,840	4,566	5,110	5,469	6,007	6,559	5,678
Number of retirees	271	243	207	412	477	653	97	19
<b>2008-2009</b>								
Average monthly benefit	\$ 627	\$ 1,178	\$ 2,035	\$ 2,861	\$ 3,590	\$ 4,598	\$ 6,028	\$ 5,749
Average final average salary	3,901	4,057	4,801	5,136	5,343	5,697	6,436	5,749
Number of retirees	198	186	198	411	617	892	116	11
<b>2007-2008</b>								
Average monthly benefit	\$ 612	\$ 1,079	\$ 1,876	\$ 2,765	\$ 3,453	\$ 4,410	\$ 6,124	\$ 6,515
Average final average salary	3,741	3,792	4,548	4,935	5,159	5,494	6,607	6,515
Number of retirees	226	197	200	406	646	798	105	12
<b>2006-2007</b>								
Average monthly benefit	\$ 614	\$ 1,014	\$ 1,772	\$ 2,748	\$ 3,283	\$ 4,322	\$ 6,145	\$ 5,826
Average final average salary	3,848	3,499	4,319	4,889	4,934	5,380	6,576	5,826
Number of retirees	162	160	159	338	653	783	115	6
<b>2005-2006</b>								
Average monthly benefit	\$ 572	\$ 1,021	\$ 1,709	\$ 2,558	\$ 3,263	\$ 4,299	\$ 5,555	\$ 5,833
Average final average salary	3,659	3,628	4,214	4,580	4,854	5,346	5,985	5,833
Number of retirees	177	137	137	358	778	744	96	6

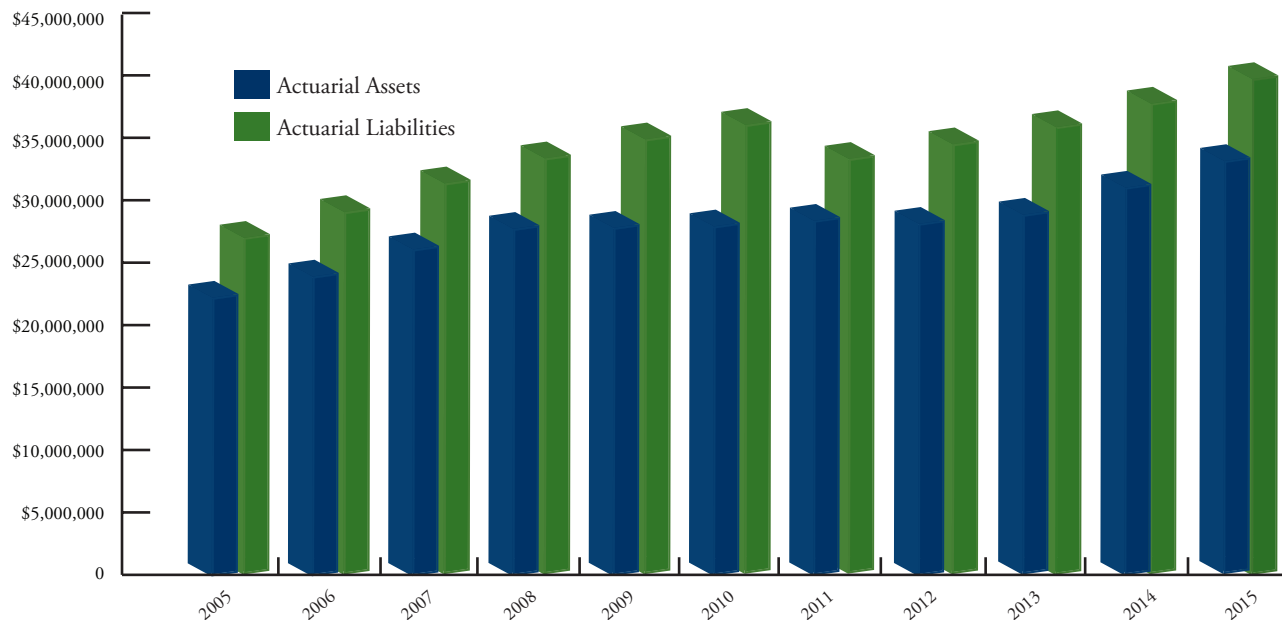
## PEERS Schedule of Average Benefit Payments to New Service Retirees

	Years of Service					
	5 - 9.9	10 - 14.9	15 - 19.9	20 - 24.9	25 - 29.9	30+
<b>2014-2015</b>						
Average monthly benefit	\$ 220	\$ 448	\$ 752	\$ 1,414	\$ 2,033	\$ 2,537
Average final average salary	2,054	2,500	2,802	3,229	3,824	4,073
Number of retirees	529	419	303	309	197	127
<b>2013-2014</b>						
Average monthly benefit	\$ 228	\$ 461	\$ 796	\$ 1,178	\$ 1,588	\$ 2,233
Average final average salary	2,042	2,406	2,884	3,257	3,632	4,110
Number of retirees	568	429	301	283	206	132
<b>2012-2013</b>						
Average monthly benefit	\$ 219	\$ 467	\$ 735	\$ 1,104	\$ 1,512	\$ 1,995
Average final average salary	1,958	2,439	2,734	3,054	3,491	3,672
Number of retirees	475	362	250	275	173	121
<b>2011-2012</b>						
Average monthly benefit	\$ 227	\$ 433	\$ 705	\$ 1,063	\$ 1,508	\$ 1,957
Average final average salary	2,010	2,257	2,597	2,954	3,502	3,637
Number of retirees	516	371	246	250	184	147
<b>2010-2011</b>						
Average monthly benefit	\$ 221	\$ 410	\$ 707	\$ 1,052	\$ 1,389	\$ 1,947
Average final average salary	1,965	2,176	2,628	2,920	3,195	3,611
Number of retirees	487	345	231	244	185	164
<b>2009-2010</b>						
Average monthly benefit	\$ 196	\$ 384	\$ 635	\$ 979	\$ 1,330	\$ 1,885
Average final average salary	1,769	2,034	2,339	2,723	3,060	3,582
Number of retirees	503	316	162	180	122	117
<b>2008-2009</b>						
Average monthly benefit	\$ 206	\$ 374	\$ 637	\$ 1,021	\$ 1,365	\$ 1,727
Average final average salary	1,821	2,011	2,349	2,847	3,104	3,240
Number of retirees	417	264	152	216	164	112
<b>2007-2008</b>						
Average monthly benefit	\$ 187	\$ 382	\$ 655	\$ 966	\$ 1,274	\$ 1,605
Average final average salary	1,741	2,070	2,451	2,724	2,930	2,969
Number of retirees	363	262	142	229	155	94
<b>2006-2007</b>						
Average monthly benefit	\$ 174	\$ 363	\$ 637	\$ 861	\$ 1,240	\$ 1,611
Average final average salary	1,607	1,918	2,368	2,423	2,838	3,038
Number of retirees	370	214	166	224	158	88
<b>2005-2006</b>						
Average monthly benefit	\$ 178	\$ 370	\$ 586	\$ 822	\$ 1,111	\$ 1,451
Average final average salary	1,611	1,971	2,134	2,306	2,564	2,708
Number of retirees	310	184	165	177	156	77

Comparisons of Actuarial Assets and Total Actuarial Liabilities

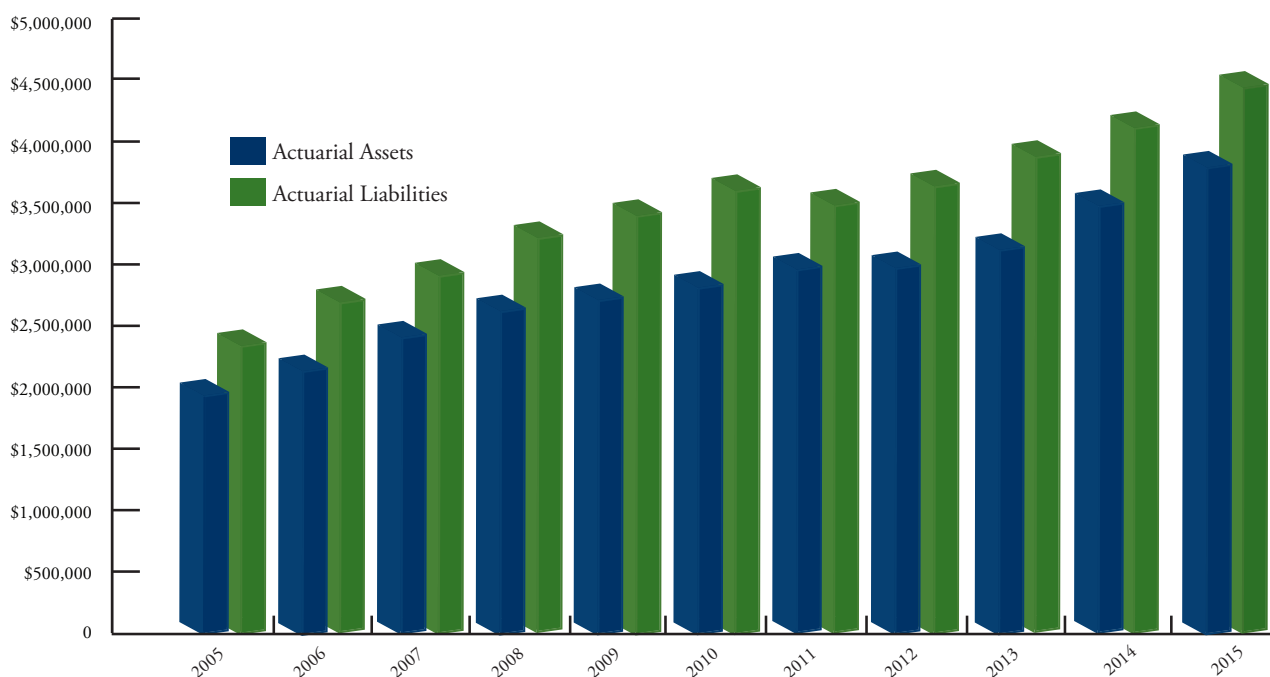
**Public School Retirement System of Missouri**

*Dollar Amounts in Thousands*



**Public Education Employee Retirement System of Missouri**

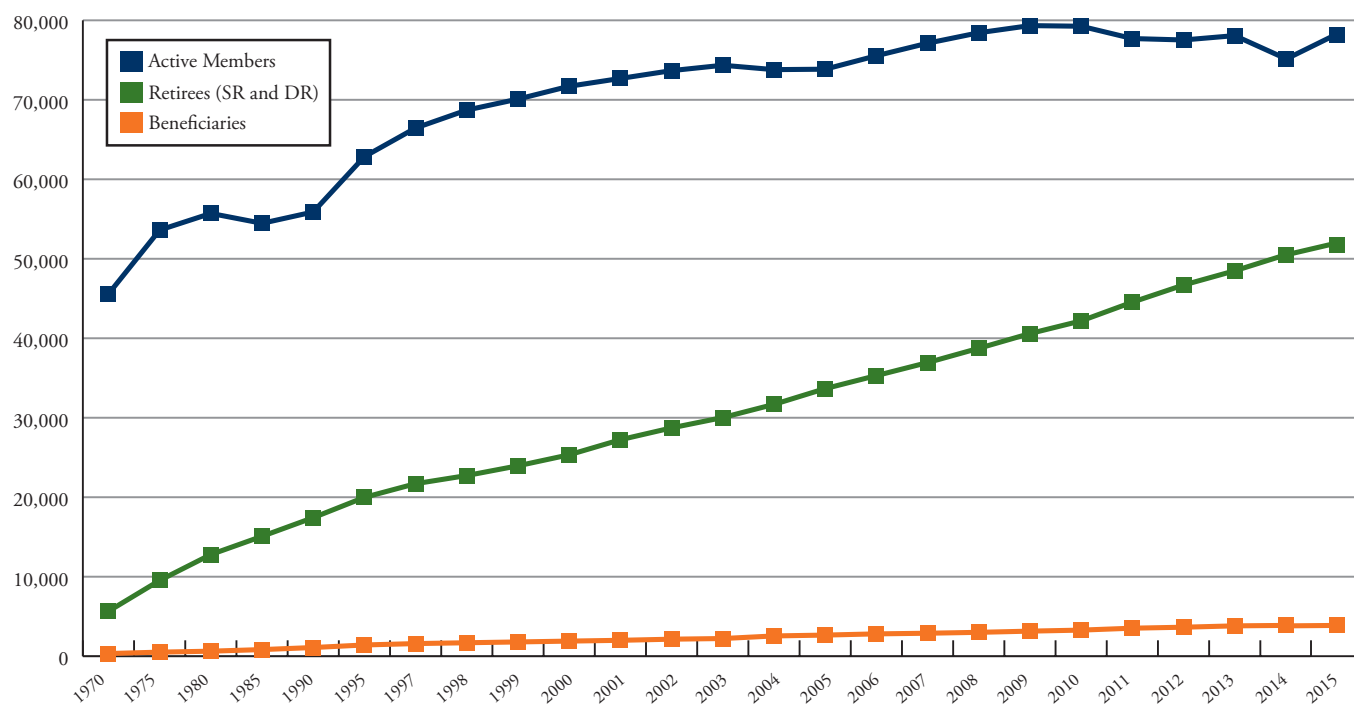
*Dollar Amounts in Thousands*



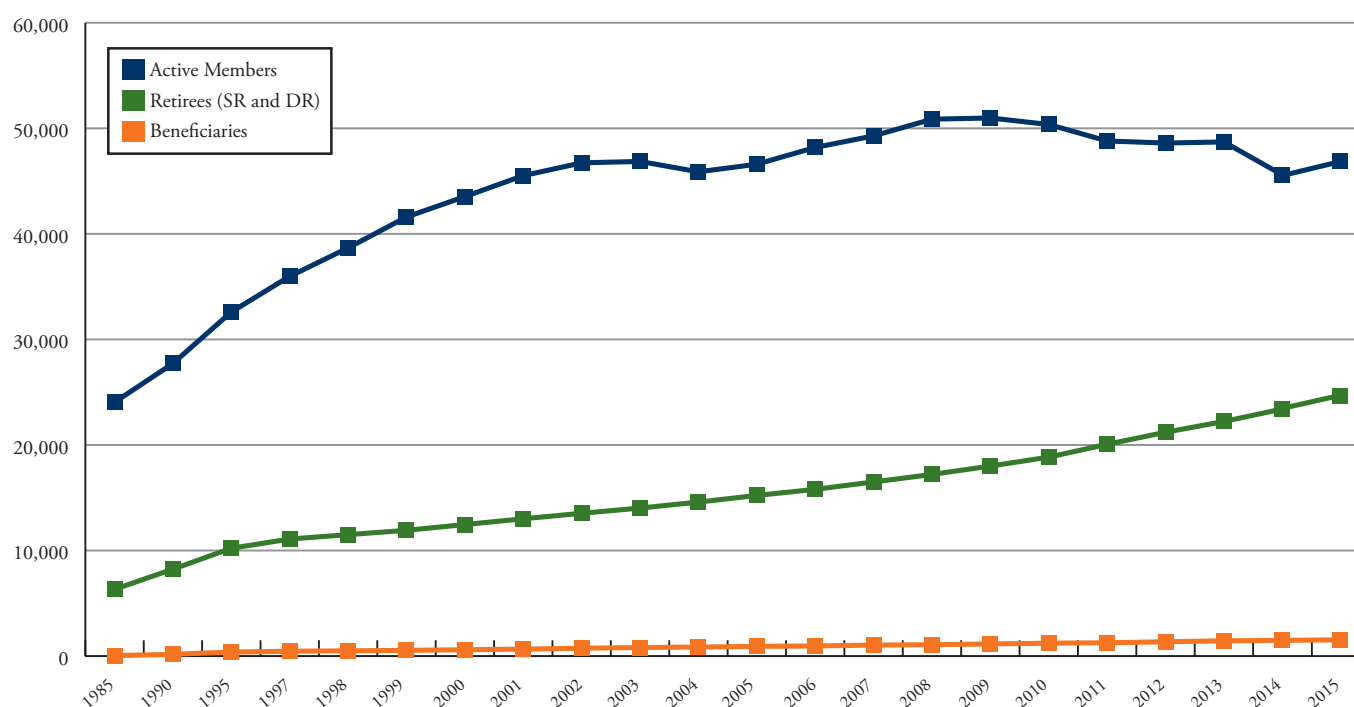


# Growth in Membership

## Public School Retirement System of Missouri



## Public Education Employee Retirement System of Missouri



**PSRS Schedule of Covered Employees in the Top 10 Employers for the 10 Years Ended June 30, 2015**

<b>Employer</b>	<b>2015</b>		<b>2014</b>	
	<b>Covered Employees</b>	<b>Percentage of Total</b>	<b>Covered Employees</b>	<b>Percentage of Total</b>
Special School District - St. Louis	2,995	4%	3,082	4%
Springfield R-XII Schools	2,189	3%	2,159	3%
Rockwood R-VI Schools	2,003	2%	1,912	2%
North Kansas City Schools	1,713	2%	1,740	2%
Columbia Public Schools	1,779	2%	1,690	2%
Parkway C-2 Schools	1,769	2%	1,672	2%
Francis Howell R-III Schools	1,610	2%	1,575	2%
Ft. Zumwalt R-II Schools	1,611	2%	1,568	2%
Hazelwood R-I Schools	1,577	2%	1,566	2%
Lee's Summit R-VII Schools	1,415	2%	1,390	2%
All Others	65,940	77%	64,335	77%
<b>Total - 535 Employers</b>	<b>84,601</b>	<b>100%</b>	<b>82,689</b>	<b>100%</b>

<b>Employer</b>	<b>2013</b>		<b>2012</b>	
	<b>Covered Employees</b>	<b>Percentage of Total</b>	<b>Covered Employees</b>	<b>Percentage of Total</b>
Special School District - St. Louis	3,080	4%	3,039	4%
Springfield R-XII Schools	2,096	2%	2,096	3%
Rockwood R-VI Schools	1,888	2%	1,910	2%
Parkway C-2 Schools	1,714	2%	1,794	2%
North Kansas City Schools	1,763	2%	1,699	2%
Columbia Public Schools	1,649	2%	1,640	2%
Hazelwood R-I Schools	1,600	2%	1,589	2%
Ft. Zumwalt R-II Schools	1,549	2%	1,508	2%
Francis Howell R-III Schools	1,538	2%	1,494	2%
Lee's Summit R-VII Schools	1,360	2%	1,341	2%
All Others	63,377	78%	62,775	77%
<b>Total - 535 Employers during 2013 and 537 during 2012</b>	<b>81,614</b>	<b>100%</b>	<b>80,885</b>	<b>100%</b>

<b>Employer</b>	<b>2011</b>		<b>2010</b>	
	<b>Covered Employees</b>	<b>Percentage of Total</b>	<b>Covered Employees</b>	<b>Percentage of Total</b>
Special School District - St. Louis	3,020	4%	3,021	4%
Springfield R-XII Schools	2,116	3%	2,132	3%
Rockwood R-VI Schools	1,936	2%	1,990	2%
Parkway C-2 Schools	1,789	2%	1,745	2%
North Kansas City Schools	1,663	2%	1,630	2%
Columbia Public Schools	1,592	2%	1,612	2%
Francis Howell R-III Schools	1,559	2%	1,573	2%
Hazelwood R-I Schools	1,510	2%	1,549	2%
Ft. Zumwalt R-II Schools	1,525	2%	1,493	2%
Lee's Summit R-VII Schools	1,412	2%	1,435	2%
All Others	62,525	77%	63,994	77%
<b>Total - 537 Employers during 2011 and 538 during 2010</b>	<b>80,647</b>	<b>100%</b>	<b>82,174</b>	<b>100%</b>

## PSRS Schedule of Covered Employees in the Top 10 Employers for the 10 Years Ended June 30, 2015 (continued)

Employer	2009		2008	
	Covered Employees	Percentage of Total	Covered Employees	Percentage of Total
Special School District - St. Louis	2,931	4%	2,913	4%
Springfield R-XII Schools	2,089	3%	2,037	3%
Rockwood R-VI Schools	1,893	2%	1,773	2%
Hazelwood R-I Schools	1,578	2%	1,639	2%
Columbia Public Schools	1,594	2%	1,626	2%
Parkway C-2 Schools	1,656	2%	1,589	2%
North Kansas City Schools	1,497	2%	1,517	2%
Francis Howell R-III Schools	1,462	2%	1,468	2%
Ft. Zumwalt R-II Schools	1,441	2%	1,395	2%
Lee's Summit R-VII Schools	1,358	2%	1,337	2%
All Others	63,490	77%	62,964	77%
Total - 540 Employers during 2009 and 542 during 2008	80,989	100%	80,258	100%

Employer	2007		2006	
	Covered Employees	Percentage of Total	Covered Employees	Percentage of Total
Special School District - St. Louis	2,861	4%	2,809	4%
Springfield R-XII Schools	2,031	3%	1,983	3%
Rockwood R-VI Schools	1,751	2%	1,724	2%
Columbia Public Schools	1,560	2%	1,533	2%
Parkway C-2 Schools	1,520	2%	1,522	2%
Hazelwood R-I Schools	1,481	2%	1,461	2%
North Kansas City Schools	1,483	2%	1,450	2%
Francis Howell R-III Schools	1,459	2%	1,444	2%
Ft. Zumwalt R-II Schools	1,351	2%	1,340	2%
Lee's Summit R-VII Schools	1,285	2%	1,262	2%
All Others	61,939	77%	60,766	77%
Total - 543 Employers during 2007 and 544 during 2006	78,721	100%	77,294	100%

Note: Schedules reflect total members reported at any time during the fiscal year.

**PEERS Schedule of Covered Employees in the Top 10 Employers for the 10 Years Ended June 30, 2015**

<b>Employer</b>	<b>2015</b>		<b>2014</b>	
	<b>Covered Employees</b>	<b>Percentage of Total</b>	<b>Covered Employees</b>	<b>Percentage of Total</b>
Special School District - St. Louis	2,496	5%	2,405	5%
Springfield R-XII Schools	1,540	3%	1,480	3%
North Kansas City Schools	1,369	3%	1,296	2%
Lee's Summit R-VII Schools	1,283	2%	1,207	2%
Rockwood R-VI Schools	1,230	2%	1,186	2%
Ft. Zumwalt R-II Schools	1,232	2%	1,180	2%
Independence Public Schools	1,135	2%	1,143	2%
Columbia Public Schools	1,081	2%	1,043	2%
Parkway C-2 Schools	1,054	2%	1,031	2%
Hazelwood R-I Schools	1,004	2%	960	2%
All Others	40,627	75%	39,568	76%
Total - 532 Employers	54,051	100%	52,449	100%

<b>Employer</b>	<b>2013</b>		<b>2012</b>	
	<b>Covered Employees</b>	<b>Percentage of Total</b>	<b>Covered Employees</b>	<b>Percentage of Total</b>
Special School District - St. Louis	2,386	4%	2,481	5%
Springfield R-XII Schools	1,488	3%	1,478	3%
Rockwood R-VI Schools	1,179	2%	1,222	2%
North Kansas City Schools	1,246	2%	1,216	2%
Lee's Summit R-VII Schools	1,164	2%	1,171	2%
Ft. Zumwalt R-II Schools	1,141	2%	1,131	2%
Parkway C-2 Schools	1,041	2%	1,085	2%
Independence Public Schools	1,065	2%	1,071	2%
Hazelwood R-I Schools	961	2%	964	2%
Columbia Public Schools	982	2%	945	2%
All Others	38,464	77%	38,222	76%
Total - 532 Employers during 2013 and 534 during 2012	51,117	100%	50,986	100%

<b>Employer</b>	<b>2011</b>		<b>2010</b>	
	<b>Covered Employees</b>	<b>Percentage of Total</b>	<b>Covered Employees</b>	<b>Percentage of Total</b>
Special School District - St. Louis	2,532	5%	2,584	5%
Springfield R-XII Schools	1,502	3%	1,473	3%
Rockwood R-VI Schools	1,206	2%	1,251	2%
North Kansas City Schools	1,203	2%	1,229	2%
Lee's Summit R-VII Schools	1,174	2%	1,198	2%
Independence Public Schools	1,082	2%	1,149	2%
Ft. Zumwalt R-II Schools	1,128	2%	1,131	2%
Parkway C-2 Schools	1,106	2%	1,091	2%
Hazelwood R-I Schools	977	2%	1,015	2%
Columbia Public Schools	906	2%	932	2%
All Others	38,146	76%	39,295	76%
Total - 534 Employers during 2011 and 535 during 2010	50,962	100%	52,348	100%

**PEERS Schedule of Covered Employees in the Top 10 Employers for the 10 Years Ended June 30, 2015 (continued)**

<b>Employer</b>	<b>2009</b>		<b>2008</b>	
	<b>Covered Employees</b>	<b>Percentage of Total</b>	<b>Covered Employees</b>	<b>Percentage of Total</b>
Special School District - St. Louis	2,685	5%	2,619	5%
Springfield R-XII Schools	1,463	3%	1,464	3%
Rockwood R-VI Schools	1,248	2%	1,241	2%
North Kansas City Schools	1,266	2%	1,213	2%
Lee's Summit R-VII Schools	1,203	2%	1,203	2%
Ft. Zumwalt R-II Schools	1,129	2%	1,131	2%
Parkway C-2 Schools	1,102	2%	1,106	2%
Independence Public Schools	1,167	2%	1,058	2%
Columbia Public Schools	950	2%	1,026	2%
Hazelwood R-I Schools	995	2%	1,017	2%
All Others	39,754	76%	39,715	76%
Total - 535 Employers during 2009 and 536 during 2008	52,962	100%	52,793	100%

<b>Employer</b>	<b>2007</b>		<b>2006</b>	
	<b>Covered Employees</b>	<b>Percentage of Total</b>	<b>Covered Employees</b>	<b>Percentage of Total</b>
Special School District - St. Louis	2,514	5%	2,483	5%
Springfield R-XII Schools	1,418	3%	1,374	3%
Rockwood R-VI Schools	1,200	2%	1,177	2%
North Kansas City Schools	1,158	2%	1,144	2%
Lee's Summit R-VII Schools	1,167	2%	1,138	2%
Parkway C-2 Schools	1,101	2%	1,120	2%
Ft. Zumwalt R-II Schools	1,051	2%	1,023	2%
Columbia Public Schools	1,008	2%	992	2%
Independence Public Schools	978	2%	920	2%
Hazelwood R-I Schools	931	2%	914	2%
All Others	38,903	76%	37,874	76%
Total - 536 Employers	51,429	100%	50,159	100%

*Note: Schedules reflect total members reported at any time during the fiscal year.*



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